

## Chairman's Message

By Babak Beheshti

[b.beheshti@ieee.org](mailto:b.beheshti@ieee.org)



On behalf of the new Executive Committee members of the Long Island Section of IEEE I would like to wish each and every Section member and their families a very Happy New Year. It is my hope that this year brings our profession and community prosperity and success. As you can see in this issue the newly elected officers took office as of January 1, 2001. Our plans for this year are to bring you more technical talks, seminars and activities that interest you. As usual, we are short handed and welcome any support, however small from the membership.

Now off to a new topic. The IEEE Grade of Fellow is conferred, annually, by the IEEE Board of Directors on people having outstanding, extraordinary qualifications and experience in IEEE designated fields, and who have made important individual contributions to one or more of those fields. You should notify our Section Awards Chairman (J.Taub) of any nomination. The nominator for Fellow grade need not be an IEEE member. Self-nomination is not allowed but the nominator often collaborates with the nominee.

Any senior member who has completed five years of service is eligible to be nominated.

The nominator:

1. Prepares the IEEE Fellow Grade Nomination Form (B-27; four pages) and submits the original to the IEEE Fellow Committee.
2. Selects five to eight active IEEE fellows to serve as references, provides each with an IEEE Fellow Grade Reference Form (B-29) and a copy of the completed Nomination Form (B-27), and instructs each fellow to submit the completed B-29 Form to the Fellow Committee.
3. Selects the appropriate IEEE Society or Council and submits, to the Fellow Evaluating Chair, by March 15, 2001, the IEEE Fellow Grade Technical Evaluation Form (B-3) and a copy of the completed Nomination Form (B-27). The nominee need not be a member of the Society.
4. Optionally selects one to three endorsers (such as an IEEE Section, Chapter, Committee or a non-IEEE organization or a non-IEEE individual), supplies each with a copy of the completed Nomination Form (B-27), and instructs each endorser to submit a one-page Endorsement Letter to the Fellow Committee.

The deadline for receipt by the Fellow Committee of the B-27 and B-29 Forms, and the optional letter or letters of endorsement, is March 15, 2001.

The references cannot include the nominator, the Chair of any Society or Council Evaluating Committee, or a member of: the IEEE Board of Directors, the Fellow Committee, the selected Society or Council Evaluating Committee, or the IEEE staff.

All the forms and letters must be submitted on paper. Paper copies of blank forms are available from the IEEE Fellow Committee, 445 Hoes Lane, P. O. Box 1331, Piscataway, NJ 08855-1331; telephone: 732-562-

3840; fax: 732-981-9019; email: [fellow-kit@ieee.org](mailto:fellow-kit@ieee.org).

Additional information, and Microsoft Word versions of the three forms, are available at

<http://www.ieee.org/about/awards/fellows/request.htm>

A long alphabetical list of the names of IEEE fellows is at

<http://www.ieee.org/about/awards/fellows/complete-list-fellows.htm>

A list of members of the Fellow Committee is at

<http://www.ieee.org/about/awards/fellows/committee.htm>

A list of Society and Council Fellow Evaluating Chairs is at

<http://www.ieee.org/about/awards/fellows/socchairs.htm>

Have a prosperous January!

Babak Beheshti

## IEEE Long Island Section Election Results

By: John H. Peterson, Chair, tellers Committee

The Tellers Committee is pleased to announce and certificate the election results held in November of 2000 for the slate of candidates of the IEEE Executive Committee Officers. The results of the ballots reflect the following elected officers for the 2001 term:

CHAIR

**Babak Beheshti**

FIRST VICE CHAIR

**William Rooney**

SECOND VICE CHAIR

**Dave Mesecher**

SECRETARY

**Lisa Zannella**

TREASURER

**Christian DiFranco**

Respectfully, John Peterson

## Meeting Announcement

On **Wednesday, Jan. 3, 2001** at 7:00 PM, the IEEE Consultants Network of Long Island will host a lecture "**Electromagnetic Compatibility Requirements**" by Richard J. Mohr, of R. J. Mohr Associates, Northport, NY, at the Polytechnic University Auditorium in Farmingdale on Route 110. Admission is free (no charge) and open to

### FREE TUTORIAL: "GOING FROM C++ TO JAVA"

the public. No pre-registration is required. For further information, call John Dunn at (631)549-6555.

The Engineering in Medicine and Biology Society (NY/North J/LI Chapter) in conjunction with the IEEE Computer Society will present a FREE TUTORIAL: "GOING FROM C++ TO JAVA"

#### About the Talk:

In this free tutorial session Prof. Levitt will provide an introduction to the programming language JAVA for those who have some familiarity with C++. Cross-platform capability plus special internet capabilities have made JAVA extremely popular in a very short time (it was first created only about 5 years ago). It is competing with C++ as an option for stand-alone devices used in "smart homes" and can be expected to have increasing application in stand-alone medical devices, as well as general application.

The main difficulty with JAVA compared to C++ is that object oriented programming (OOP) is an option in C++, which can be used where especially appropriate, while in JAVA it must be used for everything. This makes JAVA difficult to learn as a first language.

This will be a "LOW-TECH", INTRODUCTORY session for those who want to START getting into JAVA. We will consider only JAVA "applets", small applications which are especially popular due to their web applications. We will see by example how to set up the simplest program, and how to create objects. We will also examine user input, the topic most skimmed over or avoided by introductory texts.

#### About the Speaker: Prof. JOEL H. LEVITT

Prof. Levitt holds four degrees from Columbia University and has been a member of the faculty of Pratt Institute for over 25 years. He is the Chairman of our local EMBS chapter. He has taught computer programming at Pratt Institute to Electrical Engineering undergraduates (FORTRAN) and to computer graphics undergraduate and graduate students (C and C++ languages). He currently teaches C++ and JAVA at Pratt. He is the author of "Small Signal Analysis- By Computer, By Inspection" Haywood Press 1983, which may have been the first electronics text to fully integrate a presentation of electronics fundamentals with an introduction to computer programming in both BASIC and FORTRAN.

His last five lectures for EMBS were: "Introduction to Programming in C" (Feb. 15 1996), "Domestic Violence and Sugar Metabolism- What's The Connection?" (May 25 1995), "Fighting Anxiety, Depression, and Fatigue, Without Drugs" (Jan. 20 1994), "Panic Attacks and Sugar Metabolism- What's the Connection?" (Oct. 17 1990), and "Going From C to C++"(Nov.30 2000)

#### Meeting Details:

**Date:** THURSDAY Jan. 25, 2001

**Time:** 7:15 PM Registration (No charge; you need not be member.)

7:30 PM Lecture

**Place:** Con Edison, Executive Dining Room  
4 Irving Place

**Travel Hints:** One block east of Union Square (14th Street).

By subway: L-N-R-4-5-6.

For more information about EMBS or this lecture contact:

Joel Levitt at [jlevitt@pratt.edu](mailto:jlevitt@pratt.edu) (212) 479-7805 (24 hr voice-mail)

NOTE: The former chairman of the Computer Society, the late Jim Barbera, was instrumental in setting up this joint meeting.

#### Long Island Section Officers

Chair..... Babak Beheshti  
1st Vice Chair.... Robert Bruce  
2nd Vice Chair... William Rooney  
Secretary..... Lisa Zannella  
Treasurer..... Christian DiFranco

#### Address All Correspondence to:

##### PULSE EDITOR

Babak Beheshti  
101 Caffrey Avenue  
Bethpage, NY 11714-1435  
Phone: 516-939-0249  
Email: [b.beheshti@ieee.org](mailto:b.beheshti@ieee.org)

The PULSE of Long Island is published monthly except July by the Institute of Electrical and Electronics Engineers, Inc. Headquarters: 445 Hoes Lane, Piscataway, NJ 08855-1331. \$1.00 per member per year (included in annual dues) for each member of the Long Island Section. Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster send address changes to IEEE PULSE, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331. (USPS 450-540).

The opinions expressed in this newsletter are those of the authors, and no endorsement by the Institute, its officials, or its members is implied.

#### Send Address Changes to:

The PULSE of Long Island  
phone: (800) 678-IEEE  
PO BOX 1331  
PISCATAWAY NJ 08855-1331

#### PULSE Deadlines

For Feb. 2001: **1-10-01**

For Feb. 2001: **2-10-01**

### 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 1072  
Commack, NY 11725-1072  
[www.consult-li.com](http://www.consult-li.com)

#### PULSE ADVERTISING RATES

Full Page.....\$500.00 per issue  
Half Page.....\$350.00 per issue  
Business Card.....\$75.00 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.ewh.ieee.org/long\\_island/](http://www.ewh.ieee.org/long_island/) for up to date listings, changes and corrections.

January 3, 2001 - LI Consultant's Network at 7:00 PM at Polytechnic Auditorium on Route 110 in Farmingdale. No pre-registration is required. For further info call John Dunn at (631) 549-6555

January 25, 2001 - FREE TUTORIAL: "GOING FROM C++ TO JAVA", 7:15 PM Registration (No charge; you need not be member.) 7:30 PM Lecture Place: Con Edison, Executive Dining Room, 4 Irving Place, For more info contact: Joel Levitt at [jlevitt@pratt.edu](mailto:jlevitt@pratt.edu) (212) 479-7805 (24 hr voice-mail)

January 29, 2001 - EXCOM meeting at 6:00 PM, Huntington Hilton

February 7, 2001 - LI Consultant's Network at 7:00 PM at Polytechnic Auditorium on Route 110 in Farmingdale. No pre-registration is required. For further info call John Dunn at (631) 549-6555

February 7,8, 2001 - Multi-Threaded Programming for Embedded Systems Seminar, 6:00 - 9:00 PM. For registration and more information call Babak Beheshti at 516-686-7437 or email to [b.Beheshti@ieee.org](mailto:b.Beheshti@ieee.org).

February 21, 2001 - Engineers' Week Dinner, Imperial Manor, Hicksville. Registration required, dinner cost not included.

February 26, 2001 - EXCOM meeting at 6:00 PM, Huntington Hilton

---

*EDA*  
*Advertisement*

Advertisement

**PolyTech Ad**



## **New Workshops planned for Spring 2001**

The following new full-day workshops are being planned for Spring 2001. The presenter is Steven R. Rakitin, President of Software Quality Consulting, Inc. For more information about the presenter, visit his website at [www.swqual.com](http://www.swqual.com). Stay tuned for more details in future newsletters!

### **Software Verification & Validation: An Overview for Practitioners**

#### **Balancing Quality and Time-to-Market**

In today's global economy, the product development cycle has shrunk from years to months. Organizations are finding that the demand for products frequently exceeds their capacity to deliver. As a result, many organizations are forced to make tradeoffs between product quality and time to market. While perfect software is not practical, delivering poor quality software can have a negative impact on both customers and suppliers. The effective use of Software Verification & Validation techniques can improve Quality, lower long term costs, increase profits, and get products to market faster.

### **Management's Role in Achieving Predictable Software Development**

#### **An interactive workshop for Managers and Executives**

For many companies, the demand for their software products frequently exceeds their capability to deliver. Complicating the situation, many organizations frequently promise customers more than they can reasonably expect to deliver. As a result, many software companies frequently fail to meet customer expectations. This leads to frustrated, unhappy customers and frustrated employees.

Most software organizations lack discipline, credibility, and most importantly, predictability. As a result, it is very difficult to accurately determine when software products will be released, the features these products will have, and their overall quality. Without knowing when products will be released, your organization may not be able to plan customer training and product promotions, your resource utilization across projects may become difficult to manage, and your customers may be unable to plan for introduction of your software into their organization.

A predictable software development process can significantly improve an organization's ability to deliver quality software on time, to meet customer expectations, and to improve employee satisfaction. This one-day workshop provides Managers and Executives with proven techniques they can use to help their organizations become more predictable. These techniques can help your organization manage commitments more effectively, balance issues of time-to-market vs. quality, and as a direct result, improve your bottom line.

## Professional Activities Report

By: Irwin Weitman

Members of all ages take note: NOW is the time to give some thought and acting on financing your retirement. If you are less than 40, you may think you have a long way to go . YOU DON'T! "TIME FLIES!" If you are over 40 and don't know if you will strike it rich in your 50's then your situation is more urgent. Social Security is helpful but it's barely enough to keep one at the edge of poverty. The earlier you start the easier it is to build nest egg.

IEEE-USA has a new program to bring sources of good information related to retirement to its members. The following is from them: For your information, the "Pension Benefit Guaranty Corporation" was established by IRS via its ERISA program.

### A PREDICTABLE, SECURE PENSION FOR LIFE

Need more information on the different types of pension plans offered by private sector employers? IEEE-USA has posted some practical information and tips concerning the traditional defined-benefit retirement plans insured by the Pension Benefit Guaranty Corporation. To view, visit: <http://www.ieeeusa.org/features/pensions.html> For your information, the "Pension Benefit Guaranty Corporation" was established by IRS via its ERISA program.

### JOBS:

The following has come to my attention. It is an excerpt from

<http://www.edtn.com/story/OEG20001128S0047>

"Employers and job seekers alike agree that the Internet is the wave of the future for job hunting, but right now companies are still grappling with how best to utilize the Net, which today remains a weak tool in the recruiter's kit. Major OEMs are tweaking their strategies to improve efficiency, even as the IEEE-USA is putting a new wrinkle in its attempt to help members find jobs.

These moves come amid signs that although the Internet is seen as a dominant way for engineers and others to

find new jobs, it's really not. Or at least not yet. Many leading companies in the industry say they find only a small percentage of their new employees online.

"We average around 10 percent of new hires through the Internet," said Shannon Smith, manager of employer marketing at Intel Corp. (Santa Clara, Calif.). That despite the fact that "we have a jobs site that has been up and running for about a year, and it's getting two and a half million page views per month."

Surprising as it may sound to some, that 10 percent level is in line with the results of a study by Forrester Research (Cambridge, Mass.).

Only 4 percent of survey respondents who tried to find a job using the Web ended up getting one that way. Some 60 percent of the respondents said the "Internet is most effective in recruiting for technical jobs," a fact that brings Intel's doubling-plus of that percentage into focus.

You can reach me at (631)266-2428 almost any evening or at [i.weitman@ieee.org](mailto:i.weitman@ieee.org)

## Announcement of LI Section ByLaw Change

By: Babak Beheshti

In its last meeting of 2000, the Executive Committee of the IEEE Long Island Section approved several changes to the Section bylaws. These changes were related to changes in terms of office from the academic year to calendar year. As a result, the new term of office for all section officers will be from January 1 of the year to December 30 of the same year.

The dates for elections and all other related dates were shifted to correspond to the new term of office.

## 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/](http://www.ewh.ieee.org/r1/long_island/)



# IEEE Consultants Network of Long Island

(516) 379-1678

www.consult-LI.com

Compilers - Communications - Operating Systems  
UNIX - C/C++ - Windows - CASE Tools - CAE  
HP - Sun - IBM - Macintosh

## EARLY ELECTRONICS

Hardware / Software Consulting Services

Chris Early, P.E.                      unixdev@ix.netcom.com  
154 Hempstead Avenue              Voice: (516) 764-1067  
Rockville Centre, NY 11570        Fax: (516) 764-1124 (FAX)

MEMBER  
IEEE  
L.I. CONSULTANTS NETWORK



## PETER BUITENKANT

- CONSULTANT -

MICROPROCESSOR HARDWARE / SOFTWARE DESIGN  
DIGITAL CIRCUIT DESIGN • TRAINING COURSES

24 THORNGROVE LANE  
DIX HILLS, N.Y. 11746

VOICE (631) 491-3414  
FAX (631) 491-4122  
E-MAIL PETERBU@COMPUSERVE.COM

(516) 378-2149

ambertec@ieeee.org

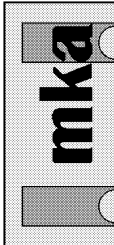
## AMBERTEC, INC.

JOHN DUNN - Consultant

Member IEEE Consultants Network of Long Island  
<http://www.consult-LI.com>

Analog, RF  
Power Supplies

181 Marion Avenue  
Merrick, NY 11566



Murray Kleiner                      Documentation / Training  
President                              Presentations / Multimedia

## Murray Kleiner Associates, Inc.

Technical Writing Consultants

16 Roxbury Avenue              Tel / Fax: 516-822-1381  
Plainview, NY 11803              e-mail: m.kleiner@ieeee.org

## Sadinsky Consulting



Samuel Sadinsky, P.E.

Plasma Sputtering & Etching  
Electromechanical & Electronics Systems

79 Miller Avenue  
Port Jefferson Station  
New York, NY 11776-3735

Voice / Fax (631) 476-5780  
e-mail s.sadinsky@ieeee.org

## CONSULTING ENGINEER

### IRWIN WEITMAN, P.E.

196 CEDRUS AVENUE  
EAST NORTHPORT, NY 11731  
(631) 266-2428

<http://www.hoflink.com/~iweitman>  
i.weitman@ieeee.org



R.F.  
SERVO  
ANALOG  
DIGITAL  
INTERFACE  
INSTRUMENTATION  
MEDICAL PRODUCTS  
CONSUMER PRODUCTS

(Retlif Ad)  
your global  
testing solutions..map ad

**30 Years Ago**  
*Rod Lowman, Historian*

Last month we reported on the section's invasion of rocket science of the 70's with its presentation on autopilots for the space shuttle. But the section also covered more mundane consumer oriented subjects like "Acoustics in Electronics" including how to improve your home stereo system. Abraham Cohen, Manager of Advanced Acoustic Engineering at ISC/Telephonics delved into the relationship between the acoustic activities and electrical equivalent circuits and the sophisticated disciplines of microwave propagation. He explained that the acoustic transducer, either as a transmitter or receiver may be considered as a combination of lumped circuit components and improved transducer design can be obtained by manipulating the lumped electrical circuit elements. The concept of acoustic-electrical analogue may be extended to the study of purely acoustic field components such as the tuned acoustic enclosures for loudspeakers, and the acoustic horn as both an impedance matching device and as a field pattern controlling element.

While the ear is the final decoder, its reliability is subject to the masking effect of the noise environment, either wide band or narrow band riding over it. To illustrate the various acoustic concepts, Mr. Cohen demonstrated noise cancellation microphones and the effect of band limiting of the masking. In the radiation field, he demonstrated the creation of phantom channels in home stereo equipment.

This was a presentation and demonstration that was of interest to both engineers and spouses. I, as one of many users of hearing aids, appreciate his concept of noise masking and the desperate need for better band limiting of noise signals. If Mr. Cohen is still around today I hope he is applying his expertise to minimizing the noise interference for hearing aids. He probably is no longer involved as he could have avoided the disaster of the K-amp, widely used in hearing aids which amplify weak signals more than moderate level signals, so that high duty factor signals like noise and restaurant clatter are boosted to completely mask the conversation you want to hear.

A 35 year veteran of the acoustics field, Mr. Cohen had a sound background through work at CBS, NBC, Metropolitan TV, Best Engineering, Radio Receptor and Executone. He founded Advanced Acoustics, was vice president of University Loudspeakers, a division of LTV-Ling Altec.



VOL. 51, NO. 1  
(USPS 450-540)

PERIODICAL MAIL  
POSTAGE PAID AT N.Y., N.Y.  
AND ADDITIONAL ENTRY

**INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.**



IEEE *Pulse*  
P.O. Box 1331  
Piscataway, NJ 08855-1331