

The *Pulse* of Long Island



January 1, 2005 - Vol. 55 No. 1

Chairman's Message

*By Daniel Rogers
drogers@ieee.org*



On behalf of the Executive committee of the LI Section, Happy New Year!

First of all, I want to thank all of you for electing me as Chairman of the section. I look forward to this year, and hope to see the IEEE on Long Island prosper as well as it has in the past year. A major reason that the section has grown in vitality over the past half decade is the efforts of volunteers such as last year's chairman, Christian DiFranco. Chris has presided over a banner year in IEEE activities, in a large part due to his steady and energetic leadership. All of us are greatly pleased by the volunteer involvement in the section and the constantly increasing level of service the section has been providing. I think all of the Executive Committee can be proud of their efforts.

I also want to take the time to thank our secretary from 2004, Basiru Samba. He has done a great job as secretary and will be missed on the Excom. I also want to congratulate the incoming Excom members, and also thank them for the donation of their time.

I first became active as an IEEE volunteer with the Long Island Section Executive Committee in 2001, becoming the Long Island Section Computer Society Chairman. At the time I wasn't sure exactly what I would be able to contribute and what I would get out of it. Now here I am four years later, and my experience with the section has helped me to grow in many ways that I never would have predicted. The people involved in the IEEE are a successful, hard working and intelligent group. Seeing how they react to and solve problems has been more education than years of MBA classes. The section deals with all the problems of a business including cost, schedule, human resources, facilities, etc. I have learned a lot about listening, patience and diplomacy. I've seen how to achieve group success via consensus arrived at after discussion, negotiation and persuasion. Upon reflection, I've come to realize that this is the way groups of people get things done, whether volunteer or not. This has been a wonderful opportunity to function and learn on an executive level.

I've been treated to some of the best conversations and lectures I've ever had while attending IEEE events. I understand that not everyone is interested in how a particular garage door opener managed to detect blockage before reversing, and how it was tested, and the small modifications that made that device safer for the user. Or how the engineers on the Lunar Excursion Module found new ways to mill wire routing channels in the metal switch panels so that they could be lighter and yet structurally sound. I've heard the engineers in the trenches (literally) discuss restoring the power to lower Manhattan in the aftermath of 9/11, and how the engineers had to freeze the dielectric in immense cables using liquid hydrogen so that they could cut and splice them without losing all the fluid. A great lecture in the Computer Society was a discussion of mobile Ad Hoc networks, where you might sprinkle hundreds of remote sensors in space to form an immense antenna for astronomical research, and each unit would communicate with a few of their neighbors and finally a relay satellite to get the data back home to earth. Or the statistical algorithms necessary to fuse incoming readings from multiple sensors to achieve the best possible location solution for a target in a combat environment. Sitting at a table at our Sections Congress I spoke with one Engineer who was going to the rocket launching facility in the former USSR to see her experiments launched.

So although not everyone finds the IEEE topics interesting, not everyone got Computer Science or Engineering degrees either. To me, there is still a great deal of cool in science and technology. If you can understand the content, the Section Lectures can be more interesting than a play,

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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: **www.IEEE.LI**

You can also register for IEEE LI Section events online at this web site!

MEETING NOTICE

On the **First Wednesday of each month** at 7 PM, the IEEE Consultants Network of Long Island will Meet.

The program will be held at Briarcliffe College, 1055 Stewart Avenue, Bethpage, NY.

Admission is free (no charge). No pre-registration is required.

For last minute announcements and updates visit:

www.consult-li.com

The 2005 Executive Committee of
the Long Island Section of IEEE
wishes the entire community of IEEE
members and their families a
Very Happy New Year!



2005 AWARDS BANQUET UPDATE

The IEEE Long Island Section 2004 Awards Banquet will be held this year at the Huntington Hilton on Friday April 15th from 6:00 PM to 10:00 PM. We will be honoring the recipients of the Long Island Section awards, as well as the recipients of the Region 1 awards.

The Huntington Hilton is located at 598 Broad Hollow Road (Rt. 110), Melville, NY. It is approximately one mile south of the LIE exit 49.

As is tradition, the Long Island Section will be subsidizing the cost of admission, allowing us to offer this memorable commemorative affair to our members and their guests for a minimum cost.

So mark your calendars and set aside Friday Evening April 15th, and join us for good food, good talk, and good friends.

The IEEE Consultants Network of Long Island Presents: "Circuit Designs, Tricks and Traps"

More Details Available on our website: <http://licn.org/>

Time: 7 PM

Location: Briarcliffe College, The Great Room
1055 Stewart Avenue
Bethpage, NY 11714

Lecture Content:

A collection of some design ideas that worked, the tricks, and some design ideas that failed, the traps, will be discussed.

Lecture Coordinator: John Dunn

Registration:

None required.

For further information, contact the coordinator by e-mail at ambertec@ieee.org or by telephone at 516-378-2149.

The presentations are wholly the responsibility of the IEEE Long Island Section and the speakers. The meeting admission is free and open to the public.

Long Island Section Officers

Chair. Daniel Rogers
1st Vice Chair . . . David Wolff
2nd Vice Chair. . . Ted Pappas
Secretary. TBD
Treasurer. William DeAgro

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PULSE Deadlines

For Feb. 2005 1-5-05
For Mar. 2005 2-5-05

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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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 website at www.IEEE.LI and click on the calendar for online registration (as available) and for listing updates

January 5, 2005 - "Circuit Designs, Tricks and Traps" by John Dunn, Ambertec, Inc., Merrick, NY. A lecture sponsored by the IEEE Consultants Network of Long Island will be held at Briarcliffe College, The Great Room, 1055 Stewart Avenue, Bethpage, NY. The meeting begins at 7:00 PM. The meeting is open to the public and no pre-registration is required. See the announcement in this issue for details. For additional info, contact John Dunn at ambertec@ieee.org or at 516-378-2149.

January 12, 2005 - "Wind Generated Power", by Andris Garcils, Wednesday, January 12, 2004, 7:00pm, Telephonics Corp. on route 110, Farmingdale, Contact Robert Bruce r.n.bruce@ieee.org 718/224-9498.

January 26, 2005 - MTT Lecture "Spectral Domain Techniques for RF System Analysis", at Telephonics in Farmingdale. Refreshments at 6:00 PM, Lecture at 6:30 PM. There is no cost for this lecture, but online registration is required at www.IEEE.LI. See announcement in this issue for details.

January 31, 2005 - Long Island Section Executive Committee (ExCom) meeting at 6:00 PM, Telephonics Corp. on Route 110 in Farmingdale- This meeting is OPEN and FREE TO ALL IEEE members- Please contact Daniel Rogers for reserving a space in the meeting (drogers@ieee.org).

February 2, 2005 - LI Consultant's Network at 7:00 PM at Briarcliffe College. For more details see Announcement on page 2.

February 8, 2005 - "EMI Gaskets: The Basic Selection Criteria", Steve Gilbert, Schelgel Systems. A lecture, sponsored by the IEEE EMC Society, will be held at the RFI Corporation, 100 Pine Aire Drive, Bay Shore, NY. Registration and refreshments at 6 PM and the lecture begins at 6:30 PM. The lecture is open to the public, but registration is required- see the announcement in this issue for details. For additional info, contact the lecture coordinator, Santo Mazzola at mazzolas@ieee.org or at 631-262-8367.

February 28, 2005 - Long Island Section Executive Committee (ExCom) meeting at 6:00 PM, Telephonics Corp. on Route 110 in Farmingdale- This meeting is OPEN and FREE TO ALL IEEE members- Please contact Daniel Rogers for reserving a space in the meeting (drogers@ieee.org).

May 6, 2005 - LISAT '05, the first annual Long Island Systems, Applications and Technology Conference 8:30am - 5:00 PM, at SUNY College of Technology at Farmingdale in Farmingdale, NY. This first conference will be feature invitation-only presentations across all IEEE Society fields of interest focusing on activities developed here on Long Island and an S-PAC/ M-PAC Student Conference. Topics, speakers, fees and registration information to follow. Please contact Conference Chair Charles Rubenstein (c.rubenstein@ieee.org) for information on volunteer opportunities, or Jesse Taub, Technical Program Chair (jjtaub@AOL.com) to nominate a topic or speaker.

(continued from page 1)

movie or dinner out (getting your date to go is up to you). I encourage you all to look at the section calendar at www.ieee.li, and find a lecture that you think might interest you. You may even decide to help the Executive Committee select, plan and execute the lectures. If you are like me, it might not seem immediately clear at the outset how you can help or what you will get out of it, but I promise you it will be worth it. If you are interested, we could definitely use you at whatever level you want to help. Just contact me at drogers@ieee.org and attend one of the Excom meetings listed in the calendar. You'll be glad you did.

As for myself, I'm looking forward to another great year of being part of the IEEE Long Island Section getting even better.

POLY AD

EDA AD



ePoly Offers 10% Discount on Online Course Tuition Exclusively to Long Island Section of IEEE

Polytechnic University, the nation's second oldest private technology university, launched a new on-line learning program entitled ePoly. By combining the quality of traditional graduate programs with the ultimate flexibility of state-of-the-art online learning, ePoly allows students to earn a Master of Science in electrical engineering (MSEE) through courses accessible through the internet.

While the admissions policy and the course rigor is the same for applicants of both the online degree and traditional degree programs offered at the Brooklyn, Long Island and Westchester campuses, the online format of ePoly also makes a Polytechnic degree more accessible and convenient for working professionals. What's more, members of the Long Island Section of IEEE will receive a 10% discount off tuition of all ePoly courses.

The following electrical engineering courses are available for the Spring 2005 semester:

EL536-INET	Principles of Communication Networks (3 credits)
EL537-INET	Internet Architecture and Protocols (3 credits)
EL603-INET	Modern Wireless Comm. Tech. and Systems (3 credits)
EL611-INET	Signals, Systems and Transforms (3 credits)
EL630-INET	Probability (3 credits)
EL713-INET	Digital Signal Processing (3 credits)

ePoly also offers courses in emerging fields like Cyber Security, Human Resource Management, Computer Science, and Technical Communications. More information on all ePoly courses can be found at the <http://epoly.poly.edu>.

"The ePoly courses allow our working students to have the flexibility to earn the necessary degree or skill to help them excel in today's marketplace," said Dr. Sunil Kumar, Polytechnic University's Associate Provost for the Graduate School. Register today at <http://epoly.poly.edu/register> or email epoly@poly.edu. Use "IEEELI" as the Special Code to get the 10% discount for members of the Long Island Section of IEEE.

Professional Activities Report for December 2004 By: Irwin Weitman, P.E., PACE Chairman

If you are Employed or Unemployed, or a Consultant you can find very useful information, TIPS, and LINKS to IEEE-USA and other web sites that would be helpful to your career. ON the Long Island Section web site: www.ieee.li you can click on "Employment Assistance Committee" for good ideas.

Excerpts from IEEE-USA Public Relations, John W. Steadman 2004 IEEE-USA President, President's Column, November 2004

- The significant and continued productivity gains since 1995 means that fewer workers can do the same work now that more workers did before. For example, between 1995 and 2002, the number of manufacturing jobs in the United States dropped by 11 percent while output increased 30 percent.
- The influx of foreign guest workers on H-1B and L-1 visas has increased the supply of high-tech workers in this country, suppressing wages. Research shows that real wages for engineers and computer scientists have not increased in 20 years.
- Ever-cheaper global communications means that offshore outsourcing will continue. Some 160,000 U.S. IT jobs have disappeared in the past three years, and both the number employed and the number unemployed have dropped.
- Best estimates are that 2 to 4 percent of computer jobs and 5 percent of call center work is done in India, where about 80 percent of the overseas white-collar jobs go. Congress is calling for studies by the Government Accountability Office and outside groups to quantify the extent to which the offshoring phenomenon may be reducing career opportunities in the United States.
- The retirement of long-time workers means that some of the continuing shrinkage will occur through attrition. Simply not replacing the retiring workers with new grads.
- The 1997 publication of Workforce 2020 by the Hudson Institute noted that as Baby Boomers reach retirement age, 80 percent of them will not fully retire because they want the stimulation of work, they are living longer than previous generations did, and they will need supplemental income to augment pensions and retirement savings. This will further reduce demand for new grads, as part-time work leads to job sharing, and as laws governing pensions are revised to permit partial retirement.

Consultants Network:

December 1, 2004 Meeting: first Wednesday of each month at 7:00 PM at Briarcliffe College Profiles of four experienced speakers consulting practices. The floor will be open for attendees to ask questions. Networking will take place after formal part of meeting is concluded. See LICN web site at licn.org

You may contact me with questions or comments at
or (631)266-2651.
Irwin Weitman, P.E.

2005 Student Conference

Hosted by the University at Buffalo

Date and Location:

Date: April 9th & 10th, 2005
Location: SUNY Buffalo
Events: Technical Paper Contest
Micromouse Competition
Robo-Rumble Competition

Overview:

This competition based conference will provide undergraduate IEEE students the opportunity to demonstrate and improve their technical and communication skills.

Prizes: Technical Paper Contest:
\$800, \$500, \$200
Micromouse and Robo-Rumble
\$1000, \$700, \$400

For more information and registration, visit our website: <http://wings.buffalo.edu/sa/ieee>

Contact us:

Nitin Mistry
President, IEEE Student Branch at UB
716-510-4118 ieee@eng.buffalo.edu

FAQs:

When must I register by?

No later than February 25th, 2005.

Who may attend?

Any Region 1 IEEE student branch member is allowed to attend. Non-competing schools will be responsible for their own travel and accommodations.

Do we have to participate in all three events?

No. Each school may choose to participate in as many events as they want.

How many entries are we allotted?

Each school can submit two approved technical papers and two entries each for the micromouse and Robo-Rumble competitions.

Why register early?

First 15 schools to register receive up to \$500 compensation for travel expenses. *Visit website for compensation guidelines.*

Which hotel are participants staying in?

Each school will be provided with one room (additional rooms upon request):

Hampton Inn Buffalo/Amherst
10 Flint Road
Amherst, NY 14226-1047
Phone: 1-716-689-4414

Contact: Mr. Jamie Stanco
Email:
jstanco@pmgstrategic.com
Tel: 631-756-7160

American Council of Independent Laboratories Bestows Highest Honor To Retlif Principal Walter A. Poggi

(NOV. 10,2004) Ronkonkoma, N.Y., USA- Retlif Testing Laboratories, Inc. President and CEO, Walter A. Poggi has been recognized by The American Council Of Independent Laboratories (ACIL) with its Lewis E. Harris Fellow Award, the highest commendation for outstanding service and dedication to the U.S. independent testing community.

Poggi, Retlif founder and longtime advocate for U.S. test labs, is only the 14th individual to receive the honor in ACIL's 67-year history. Lewis E. Harris Fellow Awards are bestowed upon individuals who demonstrate "outstanding contribution to ACIL and the industry." The honor was named after Lewis E. Harris, President of Harris Laboratories (Lincoln, NE). Harris died in 2004 the age of 94.

"Mr. Poggi has demonstrated an unwavering dedication to the testing industry's development," said Ms. Joan Walsh Cassedy, Executive Director of the Washington, D.C.-based ACIL. *"His leadership and tenacity have served the industry well in setting standards for excellence and quality. Mr. Poggi's influence has helped shape the perception of the industry domestically and abroad, and we're proud to honor him with this award."*

Ms. Walsh Cassedy's comments were made at a special ceremony honoring Poggi during the recent ACIL annual meeting in Orlando, FL.

In receiving the award, Poggi said, *"ACIL has been such an important part of the American testing industry and my professional life, that I am humbled by this honor. It is clearly the high point of my 30-year professional career."*

With over 20 years of service to ACIL, Poggi has been a fixture within ACIL as a member of its Board Of Directors, as Chairman of the Government Relations Committee, and Eastern Division Chairman. He also served two terms as ACIL President.



Walter A. Poggi (right) receives the Lewis E. Harris Fellow Award from Jerry Weathers, current ACIL President.

Retlif
Ad

30 YEARS AGO By: Rod Lowman, Historian

At the section meeting, Laurence Gray, manager of the Earth Terminals Department at COMSAT presented a paper on a Multibeam Satellite Communications System. With a single torus reflector and three multiplexed steerable corrugated feed horns usable over an octave in frequency the antenna provided at least 6 beams at any one frequency steerable over a few degrees by lateral motion of the feed horns.

That such a subject was planned is not surprising as the Program Chairman at the time was Peter Lubell who had a strong interest in television's use of satellite transmission of TV programs to cable systems all over the country. Although at AIL at the time, Peter continued to pursue this interest for many years with Cablevision.

Similarly the Section Treasurer was Duffy Gallegro another antenna designer.

The recently announced new Fellows for the year included three L.I. Section antenna and microwave experts. These included Aaron Bresler who was awarded his Fellow status for his leadership in antenna engineering and for contributions to the theory of propagation in anisotropic waveguides. It included Julius DiFranco who was cited for contribution for phased array radar theory and to multidimensional detection of radar signals. The third was Herman Okean who was cited for contributions to microwave integrated circuits, especially those for very low noise receivers suitable for enhancing the utility of Mr. Gray's Multibeam Satellite Communication System. Also at AIL, Herman continued this effort for many years later at LNR Communications, Inc. after his coworker, Si Okwit left AIL to start LNR.

With these antenna and microwave experts in the audience you can imagine that Mr. Gray had not only a receptive audience but a challenging discussion in support of his many claims for his Multibeam System. A spirited discussion like this adds great interest to any presentation.

Why not come to the next meeting on your specialty and challenge the speaker on any claim or approach you question. This will spice up the meeting, motivate the speaker to elucidate further, and open up further discussion. You, the speaker and everyone else will learn more and enjoy it more. And bring a friend with you. It is always more fun when you do these things together.



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For
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