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AUG 29 1994

REGIONAL ACTIVITIES



EMPLOYMENT ASSISTANCE COMMITTEE

We have moved!

By Harvey Altstadter

During the month of July, the IEEE Long Island Section office moved from the Grand Boulevard location into the main building at AIL. Since this is a secure facility, this will necessitate some new procedures when attending our meetings. It will be necessary for those wanting to attend to call a few days in advance and let us know they are coming. We will need your name, telephone number and citizenship. There is no obligation. Those calling who are later unable to attend will be missed. Those not calling in advance will be denied entry to the building.

Speaking of changes, Tish has been appointed Membership Chairman for the Long Island Section. Congratulations Tish! Despite his new responsibilities, Tish has promised to stay involved with EAC, and you will still be greeted by his dulcet tones when you call the office.

Our meetings continue to be very well attended. At our May and June meetings we were treated to two very interesting presentations.

In May we were given an overview of the types of training programs offered by Suffolk County and the availability of these programs to our members by Mike Falcone, the Suffolk County Commissioner of Labor. We learned that there are certain circumstances under which training programs are available without a means test. These are specifically for employees who have been displaced by recent industry contraction. As in his previous visit, Mr. Falcone provided us with an information packed evening, where there was something for everyone. He also fielded innumerable questions, and promised assistance to several members who had been having some problems with the agency.

In June, our speaker was provided through the good offices of Liz Schwartz at the Long Island Business News. Liz connected us with Mr. James Alterbaum of Parker, Chapin, Flattau & Klimpl, a New York City Law Firm. Mr. Alterbaum presented a most interesting discussion of Employment Contracts and Employee Legal Rights. Judging by the number of questions and the amount of passionate discussion, it appears that even though many of us

are unemployed, we are still interested in our employee rights, especially as relates to employment contracts. In addition, the usual subject of the ethics of concealing one's age on the resume was discussed. If you have not yet joined our Skills Inventory Database, please get in touch with us. The job matching service is available to current and recent local IEEE members. We also have IEEE membership applications if you should need them. Please pass this copy of the *Pulse* to your unemployed non-member friends. They might want to join the IEEE just for this benefit.

EAC meetings are held on the third Wednesday of each month at the IEEE offices at AIL in Deer Park. Won't you join us at our next meeting on Wednesday, September 21 at 7:00 PM. Our meetings are open to all, but you must register in advance. Call Harvey at (516) 595-5608 or Tish at (516) 595-5160 or 5170 to register and for directions or for information about becoming a member of our skills database.

30 YEARS AGO

by Rod Lowman, Historian

The Directory of the Executive Committee in the September issue of *Pulse* bore the names of the recognized leaders of the Long Island electronics industry. This is not surprising, as the L.I. Section of the IEEE usually includes the present and future leaders of the industry. I've always wondered whether it attracts leaders or whether it grooms them for leadership. What is really significant is that the full Directory of the Executive Committee was published in the September issue. The issue also contained not only plans for the September Section Meeting but previews of the subsequent Section meetings as well.

Thirty years ago, reorganization of the Executive Committee started as soon as the elections were complete in the spring. The summer was a busy time for officers and committee chairmen. By the time the September *Pulse* went to press, reorganization was complete and the Section meetings were planned for the year.

What has happened to advance planning in the IEEE? Why not be one of those future leaders who volunteer their time to make the IEEE a dynamic force in the lives of the working engineers on Long Island. We need you, and you will find it a stimulating and delightful group with which to work.

CHAIRMAN'S MESSAGE

by Ed Palacio

Welcome back! After what I hope has been a most pleasant summer for all of you, we are ready to get back to serious IEEE activities for the 1994-1995 administrative year. Let me start by giving you the results of our yearly elections...After an overwhelming popular response (30 of you voted), our L.I. section officers are: Ed Palacio (Chair), Tom Campbell (Vice Chair), Dr. Nader Bolourchi (2nd Vice Chair), Dr. Charles Buntschuh (Treasurer), and Dr. David Shyu (Secretary). I am very pleased to see new faces in the officer ranks since it is only through these new volunteers that we can guarantee the long term viability of our section.

In addition, I have made some new assignments on our Executive Committee roster for the coming year. "Tish" Tishkevich, our past Employment Assistance Chair, has agreed to accept the position of Membership Chairman; Harvey Altstadter has agreed to Chair our Employment Assistance Committee; Chakib Jaber, a new volunteer to our ranks, has accepted the position of Student Activities Coordinator. All other EXCOM members have agreed to continue one more year with their past assignments/responsibilities. As always, I must thank all of the volunteers who allow us to function as an active section.

During the summer months, the L.I. Section office, previously housed in the AIL Grand Blvd. facility (also known as the "United Way" building), has moved into the main AIL Deer Park building. This has its advantages and disadvantages. The advantage is that excellent conference rooms and an auditorium can be made available for IEEE use. The disadvantage is that (as in all secure facilities) meetings must be planned and coordinated through my office ahead of time and attendance lists must be provided *prior* to all meetings. In addition, an AIL employee must be willing to stay for the duration of the meeting to act as an escort. Meetings that cannot comply with these ground rules, must be planned in different facilities, such as universities, libraries, etc.

Over the summer, I attended two talks that I am sorry most of you missed. In June I attended an excellent talk and slide presentation on the Engineering of the After-Bombing cleanup at the World Trade Center. Jack Busbaum, the chief electrical engineer of the N.Y. Port Authority, gave what I considered one of the best broad audience presentations we've had in a long time. Too bad only 8 of you were present. In early August I attended a Consultants Network meeting which featured Mr. Mark Bender, Esq., a patent attorney, who gave an excellent talk on protecting intellectual property. This talk fortunately was well attended but, undoubtedly, many more of you would have benefitted and enjoyed these presentations.

Lastly, our Adaptive Antenna Symposium, scheduled for November 7 and 8 at the Melville Radisson, has already compiled an impressive array of speakers and topics. This is one event you want to attend. You will not be disappointed.

LONG ISLAND IEEE CALENDAR

(No membership requirements, no registration, no fees at meetings unless otherwise noted. IEEE Office is in the AIL Main Building, Commack Road, Deer Park, LIE Exit 52)

SEPTEMBER 8 — Networking - LI Consultants Network - 7:00 PM - IEEE Office - for info, call Stewart Senator at (516) 654-1426 or Irwin Weitman at (516) 266-2428.

SEPTEMBER 21 — Employment Assistance Committee - 7:00 PM - IEEE Office. For information, call Harvey at (516) 595-5608, or Tish at (516) 595-5160 or 595-5170.

SEPTEMBER 26 — EXCOM meeting at 6:00 PM - IEEE office at AIL

NOVEMBER 7,8 — Adaptive Antenna System Symposium and Electronic Exhibition - LI IEEE Section - Radisson Plaza Hotel, Melville, New York. For further information, please call Thomas A. Campbell at (516) 757-3008.

JANUARY 29 - FEBRUARY 2, 1995 — Student PES Winter Meeting - Power Engineering Society - New York City Hilton Hotel, 1335 Avenue of the Americas, New York City. See article in this issue for further information.

Long Island Section Officers

Chair.....Eduardo F. Palacio
1st Vice Chair.....Tom Campbell
2nd Vice Chair.....Dr. Nader Bolourchi
Secretary.....Dr. David Shyu
Treasurer.....Dr. Charles Buntschuh

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POSITION PAPER

Editor's note: The following is a letter I received from Dr. Donald M. Bolle, a 1995 President-Elect Candidate. Other candidates are welcome to send their comments.

Dear Member:

The election this year, which will determine who will become the 1995 IEEE President-Elect and, subsequently, the IEEE President in 1996, is a particularly important one since the IEEE is at a significant point in its development.

The IEEE needs strong and experienced leadership through this period when it seeks to fulfill its aspiration, first voiced at the founding in 1963, of becoming a truly global technical and professional organization with a worldwide membership and international leadership. Concurrently, it must meet the special needs of the U.S. members for whom the IEEE is the only national organization which, through USAB, represents their particular interests.

As recognized by those who formed the IEEE out of the AIEE and IRE, the development of technology recognizes no geographic or political boundaries. To continue to grow as the premiere electrotechnical organization requires access to the best materials in electro-technology and computer science, and the ability to first gather and evaluate information through a global membership and, then, through its publications and meetings to disseminate it worldwide.

My volunteer efforts started in the early 1960s at the Section level in programs and finance, as well as organizational. In addition, my extensive exposure to members and volunteers through attending Regional meetings and participating in a number of the annual TAB Colloquia visits to various regions, have given me a clear insight into the needs of our members and the problems and frustrations they face in

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getting timely access to IEEE programs, periodicals, conferences and products and being able to participate fully in IEEE activities in furtherance of their professional and personal goals.

Concerns widely expressed by members fall into three areas: (a) support in career development; (b) recognition of meritorious work and professional standing; (c) job security and income commensurate with professional standing. We have attained excellence in many areas. Many of our conferences and publications set the standard in their fields, but we have fallen short in some aspects. For example, we have not provided continuing education nor design- and applications-oriented materials that meet the criteria of quality and availability as our Transactions material (in spite of the best efforts of many hard working editors), nor do we provide adequate high-quality programmatic support for our Chapters and Sections. We need to recognize that generally fewer than 10 percent of our members can in any given year attend the workshops, conferences and symposia offered by the IEEE. We need to adjust our programs to that reality.

Our various membership grades and fields awards, awards for professional activities, best papers awards, as well as the Institute's medals, are recognized as providing a good vehicle for recognition provided we can exploit these to give awardees the public recognition they deserve and need. to information bases accessible through the IEEE, and using e-mail, to interact more readily with each other and with volunteer leaders must be strongly supported. And, we must lead in electronic publishing. Technical information can be reviewed, edited and provided much more quickly to members if it is distributed via bitstreams vs. having to print and mail hard copy, with its attendant high cost and inevitable time delay. Local access through servers must be promoted as rapidly as the tech-

Continued on Page 5

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THE PATENT CORNER

by Victor M. Serby, P.E.

Welcome back from the summer! This month's Patent Corner features inventions from the electrical/electronic arts from Long Island Inventors which were issued from April through July 1994. Questions, comments, or topic requests for this column can be addressed to me at 255 Hewlett Neck Rd., Woodmere, NY 11598.

RECENT L.I. PATENT ISSUES

Copies of patents are available for \$3.00 each from The Commissioner of Patents and Trademarks, Washington, DC 20231. (There is no street address; the zip code is reserved for the USPTO).

US PAT NO: 5,327,466
TITLE: 1X asynchronous data sampling clock
INVENTOR: Frank Marinaro, 22 Lauren Ave., Dix Hills, NY 11746
DATE ISSUED: July 5, 1994
ABSTRACT:

A circuit for retiming asynchronous data. A sampling clock is derived in which the system clock frequencies are no higher than that of the data

US PAT NO: 5,324,685
TITLE: Method for fabricating a multilayer epitaxial structure
INVENTORS: Reinhold Hirtz, 6 Greenland Dr., Huntington, NY 11747
Gregory Zakaluk, 2425 Aron Dr., North Seaford, NY 11783
Joseph Chan, 27 Robin La., Kings Park, NY 11754
Dennis Garbis, 29 Darby Dr., Huntington Station, NY 11746
Lawrence Laterza, 5 Rustic Rd., Miller Place, NY 11764
Ali Salih, 118 Gun La., Levittown, NY 11756




DATE ISSUED: June 28, 1994

ABSTRACT:

An all epitaxial process performed entirely in a CVD reactor is employed to grow a heavily doped layer on a lightly doped layer on a heavily doped substrate, eliminating the need for separate diffusion, even for high impurity concentrations. The process starts with a heavily doped silicon substrate of carrier concentration typically greater than 1 times

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10 sup 19 per cm.sup3. To minimize out diffusion, the substrate is "capped" by growing very thin and heavily doped silicon layers which are depleted by hydrogen purges. A first epitaxial layer is grown over the "capped" substrate. This layer is relatively lightly doped, having a resistivity of more than 200 ohm cm. A second epitaxial layer is then grown over the first epitaxial layer. The second epitaxial layer has a polarity opposite to that of the substrate and is heavily doped to a resistivity of less than 0.005 ohm cm.

US PAT NO: 5,307,517
TITLE: Adaptive notch filter for FM interference cancellation
INVENTOR: David A. Rich, 845 Woodmere Ct., Woodmere, NY 11598
DATE ISSUED: April 26, 1994
ABSTRACT:

An improved adaptive notch filter for removing undesired cochannel FM interference includes in-phase and quadrature signal processing paths in which the undesired FM signal is translated to zero frequency, i.e. to DC. In each of the in-phase and quadrature phase signal paths, a first multiplier translates the input frequency spectrum in a dynamic manner so that the frequency of the undesired FM signal is always centered on DC. The undesired signal, now at DC, is filtered out by a high pass filter with a sharp rolloff. The output of the high pass filter is remultiplied in a second multiplier to translate the desired FM signal back to the original position in the frequency spectrum. In order to eliminate an unwanted difference frequency remodulation signal at the output of the second multiplier, the quadrature phase signal path performs a parallel operation on the same input signal, but with a quadrature phase (90 degree phase shift) control signal. The output, the in-phase and quadrature signal processing circuits are combined in an adder circuit to cancel the unwanted difference frequency remodulation signal.

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Contact L. Zuckerman

PES ANNOUNCES 1995 STUDENT WINTER MEETING

The Power Engineering Society announced a student winter meeting on Sunday, January 29, 1995 to Thursday, February 2, 1995 at the New York Hilton Hotel, 1335 Avenue of the Americas, in New York City. The program will include inspection trips to Consolidated Edison's Ravenswood generating station, its energy control center, and the Plasma Physics Laboratory at Princeton University, a poster paper contest, where the winners will be awarded cash prizes. The IEEE/NSF Program will sponsor IEEE student members who live outside New York City with room, board and conference expenses. For advance registration information, please contact the 1995 IEEE PES Winter Meeting. Register at the IEEE Service Center, 445 Hoes Lane, Piscataway, NJ, 08855-1331. The phone number is (908) 562-3881 and the fax number is (908) 562-1571. For financial aid information, please contact Professor Morteza Daneshdoos, Coordinator, IEEE/NSF Student Program at the Department of Electrical Engineering, University of South Illinois, Carbondale, IL, 62901-6603. Please provide the coordinator with a letter indicating your study background and the name and address of a power faculty member at your university for reference.

SECTION'S 1994-1995 OFFICERS ELECTED

The Tellers Committee (M. Schweisberg, Chair; N. Simonelli; R. Lowman) is pleased to announce the results of the vote for the 1994-1995 Long Island Section Officers.

Chair	Eduardo Palacio	22 votes
	Robert E. Hall	1 vote (write-in)
First Vice Chair	Thomas A. Campbell	22 votes
	John M. O'Hara	1 vote (write-in)
Second Vice Chair	Dr. Nader Bolourchi	23 votes
Secretary	Dr. David Shyu	22 votes
Treasurer	Dr. Charles Bunschuh	23 votes

A total of 30 ballots were received: 23 valid, 7 invalid. Congratulations to each of the elected officers, and the best of luck to each of them in the upcoming year.

Position Paper Continued from Page 3
nology and economics allow. In addition, such electronic databases become even more valuable if the material is tagged so as to allow searches to be made using parameters such as topics, key words or authors.

Thus, I pledge myself to moving the IEEE forward in accord with its strategic plan.

PACE

by Irwin Weitman

On March 12, 1994 I attended a meeting of the Member Activities Council (MAC) of IEEE-USA. The purpose of the meeting was to review progress made, as well as plans for member services in 1994. One accomplishment in 1993 was the start-up of a job referral service, called JOB BANK USA, for our unemployed members. There is a write-up about it in the latest copy of the *Institute* on page 3. If you haven't read about it, call (800) 296-1USA to obtain details. Don't forget that we have our own job referral service on Long Island, the Employment Assistance Committee.

EAC of IEEE-USA has made an agreement with Kinko's to provide a 10% discount for most services, including data processing, laser printing, resume creation, fax, color copies, binding, and other services. Call (800) 743-COPY for the location of the nearest Kinko's.

IEEE-USA E-Mail has an excellent information sheet for unemployed members who have access to Internet mail. Send a blank message to:

info.ieeeusa.employ@ieee.org

to obtain this information. I have personally requested this file and will provide it to EAC of Long Island as soon as I get a copy.

We were informed at the MAC meeting that IEEE national is moving ahead with its "Globalization" plans. The volunteers involved with the Consultants' Networks were requested to help with this process by working on a committee to develop a constitution and/or Bylaws for Professional Alliances. They suggested that we use the Alliance of Consultants' Networks as a model. The entity is intended for other professions on a global scale. What this really means is not too clear yet, since there are such major differences in culture, ethics and laws between different countries. At first, I hesitated to be on such a committee because it's goals are unclear. However, on further reflection I decided that if I didn't, someone else might have the opportunity to come up with an even more outlandish result. Wish me luck and patience.

IN MEMORIAM

Adrian Frylink III

1932-1994

For nearly 40 years, Adrian Frylink III, was a pioneering leader in the procurement of microwave material for the EW industry. He passed away quietly at home on June 20, 1994 after an extended illness. Mr. Frylink, a life-time resident of Babylon, attended the Reddy School and Cornell and Hofstra Universities. He also served in the U. S. Army Occupational Force in Germany.

Mr. Frylink was perhaps best known as Purchasing Manager for Microwave and other devices while at the AIL Division of Eaton Corp., especially during the early days of AIL's ELINT developments. In this capacity, Mr. Frylink was a pioneer in the development of technically competent sources for supplying wideband microwave equipment vitally needed by our country through the Vietnam War and through the long standoff of the Cold War. In visionary anticipation of his country's needs, Mr. Frylink persuaded his company to develop a cadre of procurement specialists for microwave ECM equipment as early as 1960.

In 1981, Mr. Frylink joined The General Instrument Corporation where he again directed procurement of electronic components and subsequently became Director of Material at Sedco Systems, primarily in the ALQ-161 & ALQ-165 jammer portions of the EW Industry, complementing the activities he had headed at AIL in programs such as Project Star, USD-7, ALQ-99, B-1.

Mr. Frylink was also well known as an ardent fisherman. He was a long-term member and officer of the Babylon Tuna Club, where his accomplishments in the capture and tagging of sharks became legendary to his many friends. Mr. Frylink was also descendent from a family dedicated to horticulture and, specifically, to the cultivation of tulips and other bulbs imported from Holland. Mr. Frylink is survived by his devoted and loving wife, June, four children, six stepchildren, and five grandchildren.

EDITORIAL

by Kenneth Mas

A new Pulse year beckons...In my rookie season, one thing I tried to do was step back and let our members voice their concerns. I hope to continue that pattern. I would much rather print a member's comments on a hot topic than insert an editorial of limited perspective. To this end, I encourage you to continuously voice your concerns by contacting me or your elected section officers...I note, judging by the anonymous letters I've received, it's seldom that one gets the chance to voice a concern in the engineering profession without fear of reprisal.

Are there things we could or should be doing as a Section, but are not? Do you have an idea that can promote the efforts of the Sections? Or, do you just want to lend a hand? Let me know!

While I can't guarantee that your suggestions will be implemented, I can guarantee that Section officers and other members of the Executive Committee will be made aware of your concerns. And, if space permits, I'll try to insert your comments into *The Pulse*.

I'm particularly curious about our members' thoughts on the recent member opinion survey performed by the IEEE. The results were published in the August, 1994 edition of *The Institute*. I don't believe that comments from 970 U.S. members is an accurate reflection of the current situation, especially here on Long Island. For example, in the United States, nearly 6 percent of engineers in their 50's report they are unemployed involuntarily compared with no more than 2 percent in any age group. I recall Robert Bruce pointing out that only 33 percent of graduating engineers were able to find employment in their field at an EXCOM meeting several months ago — see the April 1994 *Pulse* Editorial. Maybe we should conduct our own survey. What do you think?

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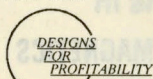
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