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4th-1st quarters 1998/1999	

reetings from your Chairman as we rapidly approach the start of the new century. It's an exciting time as technological advances abound and there is widespread prosperity. We can take great satisfaction from our own direct involvement in many of these advances. It's all the more remarkable when we remember that our careers started at a time when the Great Depression was ending and WW II was in full swing.

Your committee at its recent meeting considered several requests for funding among which was one to contribute to an effort to restore the building in which Ben Franklin lived while in London, England. We were favorably disposed but are awaiting word from other IEEE entities that were also asked. The reason we postponed our decision was to ensure that we have a consistent response from all of IEEE. This request will be reconsidered at our next meeting.

A major responsibility of your committee in its administration of the Life Member Fund is to consider such requests. Simply stated, the requests should support projects that are in keeping with IEEE objectives, that do not have sufficient funding through other channels and that are in areas of interest to Life members. Proposals can originate anywhere (not just the US) and do not have to be international in scope. While the Fund is wisely invested to help maintain a reasonable working balance, it's important for us to remember the need for our annual contributions to sustain the Fund.

One of our pleasures as Life members is to attend technical conferences to see old associates and to hear what is transpiring in our fields of interest. In recognition of our special interests, the IEEE has a policy that the registration fee for Life members should be no more than that for students unless the Conference Committee stipulates otherwise. Recently, it seems that many Conference Committees are either ignoring or are unaware of this policy. The result is that Life members are not offered registration at reduced fees. I've appointed a sub-committee to suggest steps we might take to have this Life Member benefit fully recognized.

The 1999 Sections Congress will be held in Minneapolis (MN, USA). The Life Members Committee will host one of the luncheons for all attendees and use that opportunity to promote two things. The first is the formation of Life Member Chapters in the Sections, and the second is that Life members are a valuable resource that Section Chairmen can call upon for assistance in Section activities.

If you have some thoughts you'd like to share with me, please write and I'll try to respond. Best wishes for a healthy and happy new year.

Dick Jaeger, Chair Life Members Committee

Good causes

The KCIEEE (Kansas City Section) Life Member Chapter got its start back in 1994 (see LM newsletter Winter '95/'96). The group started via social meetings at the local Holiday Inn. Amid ensuing discussions and results from a questionnaire prepared by Harvey Bayless, our group's focus sharpened.

For this group, industry field trips have proved to be the most popular. And the Kansas City Section has been very supportive of the program. The monthly section newsletters give details regarding field trips. Related to this, all Section members are invited along on these field trips. We have about 185 Life members in the Section. About 35 are usually interested in these field trips. Typical attendance for a field trip is about 15. Recent trips/activities have included: Kansas City Power and Light, Channel 9TV, XEROX Machine Maintenance, Lucent Technology and a hands-on demonstration of a middle school science lecture to the Johnson County Radio Amateurs. (I have been using the title of KCIEEE Life Member Chairman when seeking out field trips to industry. The title has worked

Life Member Chapters

A Section Life Member Chapter can help Life members remain active and involved in IEEE activities. The LMC is also making funding available for those volunteers looking for seed money. It can be used for postage to mail out meeting announcements, making copies of the meeting announcement or refreshments at your meeting.

In addition to activities mentioned by the Kansas City LM Chapter, here are some activities other LM chapters are doing! Meet for lunch and talk about the latest technology. Volunteer at middle and secondary schools or join RE-SEED (see page 8).

If you would like information about forming a Life Member Chapter in your Section, contact your Region LM Chapter Coordinator, Regional LM Chapter Liaison or Life Members Committee Staff Support.

Region Life Member Chapter Coordinators

Region	Coordinator	Email Alias
1	Ted Saad	t.saad@ieee.org
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Dan Jackson, Regional LM Chapter Liaison, 5704 Castle Rock Road, Roanoke, VA, 24018, USA; E-mail: kmchapters@ieee.org.

Life Members Committee, 445 Hoes Lane, Piscataway, NJ, 08855-1331, USA; Phone: (732) 562-5501, Fax: (732) 463-3657; E-mail: clife-members@ieee.org>.

very well. Typically, I also mention our purpose is to encourage continuing education, which is an essential part of IEEE.)

On 13 February 1995, the group reevaluated its direction and overall intent. They worked off a draft prepared by Bob McCabe with seven key topics that are food for thought for any Life member group.

- 1) Fraternal gatherings—speaks for itself.
- 2) Volunteer pool—a resource of experienced engineers for activities including career counseling and supporting local Section activities.
 - 3) Continuing education—field trips, tutorials, info on university courses and satellite programs, etc.
 - 4) Employment—some LMs gainfully employed might want to retire and work part-time; others who have retired might want to do some contract work/consulting. Many companies, particularly startups, have short-term needs for experienced engineers.
 - 5) Hobbies—many hobbies are encompassed by IEEE; for instance, amateur radio and computers.
 - 6) Advocate—address special issues related to Life members; for example, lobbying on pensions, social security, age discrimination, etc.
 - 7) Networking—establish a Life member electronic communications network. For home-bound retired Life members, who might not be in a position to purchase a computer, perhaps companies could be found to donate their outmoded computers.

Fred Schnittker, Life Member

Note: A five page report/information package concerning Kansas City Life Members Chapter is available upon request. Please contact IEEE Regional Activities, Piscataway, NJ 08855-1331 or e-mail < lifemembers@ieee.org>.

(or how the LMC spends your donations)

Every Fall (nowadays) you are asked if you would like to give a donation. We are always hoping you will say, "love to," and check off "IEEE Life Member Fund Gift." This item is located just before the 4 TOTAL AMOUNT DUE line item on the 1999 IEEE Life Membership Profile. All contributions are greatly appreciated. In 1998, the following projects were funded:

RE-SEED • Technical Literacy Counts • Graduate Fellowship Program in the History of Electrical Engineering • Graduate Student Summer Intern Program • Donald G. Fink Prize Paper Award • Life Member Prize in Electrical History • LM Chapter Support • Life Member certificates • Student Prize Paper contest and poster • Westinghouse Films on CD • WISE program • Funding young women engineers' attendance at the International Symposium on Technology • The IEEE History Center Quasi Endowment and, of course, this newsletter.

Another way to give. If you have already sent in your profile, but wish to make a contribution, you still can. Just make your check payable to the *IEEE Life Member Fund*. Then mail it to the Life Members Committee using the address on page 8 (Where to write).

How to request funds

Need funds for a worthwhile project you would like the LMC to consider? Please use the following format:

- **I. Executive summary**—synopsis of the project and a succinct statement of why you think it should be funded by the LMC:
- **II. Detailed proposal**—objective, description, budget, funding requested, entities involved, expected outcomes;
- III. Participating individuals—1) IEEE Staff Personnel: If yes, what specific personnel (or entity) are involved and estimated level of effort; 2) IEEE Volunteers: specific individuals, group, etc. Is there a commitment to the project and estimated level of effort, and 3) Professional biography: brief summary of professional experience of lead personnel will be helpful to the Committee when deciding.

Note: Three primary project areas for which the IEEE LMC provides funds are: 1) young electrical/computer engineers and potential electrical/computer engineers; 2) IEEE Life members and other similarly mature members who lack Life membership tenure, and 3) history of electrical engineering. As LMC Chair, Dick Jaeger noted, proposals are welcomed from anywhere in the world and do not have to be international in scope.

The 1999 IEEE Life Membership Profile

You should have received your profile letter by now. But, is it still in your to-do pile? Returning this annual profile letter is important for IEEE's records and, thus, the quality of service you receive.

For Society publications you currently subscribe (or wish to add or can-

to (or wish to add or cancel), this is your renewal bill. You may leave things status quo, cross out or add on depending on your preferences.

If you are a Life member in one or more IEEE Societies, you still must respond. In accordance with Institute Policy (see box), Society Life members must state every year if they wish to continue receiving the Society's core publications.

The Life Membership profile makes it easy to do. Just check "yes" or "no" under 2 for the Societies

"An individual who has had not less than five years of Society or IEEE-SA (Standards Association) membership, immediately prior to attaining Life Membership, or completes such five-year membership while a Life Member, may continue a Life Membership in such Society or IEEE-SA, respectively, without dues payment. Life Membership in a Society or IEEE-SA entitles the member to receive, free of charge, the services and publication(s) provided for the basic Society dues or IEEE-SA dues, on the condition that the Life Member confirms each year that such services/publication(s) are still desired."

IEEE Bylaw I-110.5 states:

listed under "Current Memberships, Publications and Products." (If you choose not to receive the core publications, you will still receive the Society's newsletter and retain your Society Life membership.) If IEEE does not hear from you by 27 Feb. '99 (US or Canada) and by 24 April '99 (everywhere else), core Society membership publications will stop being mailed.

I was amused by the article on the Society of

Old Bats. I was a member of two "scientific societies" of about the same vintage.

The SEWERS came about as a result of older scientists not being able to read name labels at meetings that were pinned to the left lapel. The title of the organization—Society to Encourage Wearing of Emblems on the Righthand Side—speaks for itself. I



have no idea how many members were enlisted. For a considerable time, we handed out cards to everyone interested. I

also cannot tell where the organization began.

Another organization to which many scientists and engineers belonged during World War II was the "Short Snorters." Members were identified by a one dollar bill which had been signed by crew members of a plane on very long distance flights. The term "short snorter" came about because you only had time for a short snort at refueling points and in flight. I lost my bills (I had several) somewhere. And after sixty years, my memory of details of membership may be inaccurate. Perhaps another engineer can fill us in.

J.H.U. Brown, Life Fellow

SoOB - why the initial question

RADAR history.

I saw an advertisement for the Society of Old Bats (SoOB) in a magazine and sent in the nominal fee to join. I received my membership certificate (a photo copy), but never heard from them again. Considering the quality of the certificate and the lack of follow up, I assumed that it was a joke of some kind.

I am still interested in the history of RADAR since much of today's electronics had its roots in the development of RADAR. I have been disappointed

Pre-telling of the A-bomb

Lavergne E. Williams, of Melborne Beach, FL., in the last newsletter wrote about 1945 radio commentator Arthur Hale telling the atomic bomb story prematurely.

Perhaps the most famous pre-telling of the Abomb was in the March 1944 issue of Astounding Science Fiction that included Cleve Cartmill's, "Deadline." This story discussed the design, construction and delivery of an A-bomb. The US Government tried to stop the issue, but when it became obvious that blocking a particular science fiction story would tell more than letting the issue go, they backed off.

It should be noted that all the information in the story was readily available from many public sources. Also, at that time, even Maxwell's Equations were being marked "top secret."

I worked in broadcasting for awhile around this time and, regularly, the AP news wire would include a note that no mention was to be made of anything referring to U235, atomic energy, etc. These frequent orders not to talk about certain things, widely distributed by a press service, would seem to me to have more potential impact than any broadcast on Mutual, a network serving primarily small stations in rural areas. Although I worked for several stations that carried Mutual, I have never heard of Arthur Hale.

Lee Goeller, Life Senior

My question seems to have set off quite a that the Universities fail to acknowledge the role of debate. After 21 years designing and testing proto- the RADAR engineers in today's electronics. In the type and proof of concept RADARs, I joined a rush to make engineering into a "hard science," all National Laboratory. I traded 100 foot towers for traces of the innovative engineers and their circuitry accelerator tunnels. I also became interested in are replaced by functional descriptions*. Engineering is the art of applying scientific principles to solve practical problems and doesn't exist by itself

I am still interested in an organization to discuss the history of RADAR engineering. We should not let the names of the innovative pioneers of the electronics/communication revolution be forgotten.

Walter W. Frey, Life Senior

* i.e. The Colpitts oscillator, crystal control capacitor divider feedback, has been "re-invented" successively using transistor and TTL devices without acknowledgment.

A first job

Summer of 1941 that was the burning question. For Moreover, the size had to be about three inches largin the NYC drafting room that Gibbs & Hill, Inc. er both ways. had rented, the design of the utilities for the Army Air Depot being built in Rome, NY was underway. telephone wires. But the thin brass line held; the Army The project manager, John Relihan, and the Army liaison man tried their best to extract the information from the Army labyrinth in Washington.

Finally, after about two months, the information came through. The designers began tracing from various-sized sheets onto printed drawing forms of the approved size. Nine months later, everyone was hustling because the job had to be delivered within a week.

Then the bomb. The Army informed us the drawings had to be another size! (Preliminary draw-

"What's the official drawing size?" In the ings had been reviewed without criticism.)

There was cursing, bitching and the burning of would not retreat. The only thing to do was to cut L-shaped pieces of paper which were attached to the top and left sides of the drawings with the then-approximation of scotch tape. The tape tended to come off in the printing process and showed terribly on the prints. But the standards of the Army were upheld: the drawings were on forms of the official size.

In my remaining forty years with Gibbs and Hill, I was glad that I was never again assigned to a military job.

Benson Boss, Life Senior

War stories

If at first you don't succeed, switch locales

years had wanted to establish an internationally oriented, high-tech learning center. His first attempt was in 1973-74 while a Special Chair Professor at the National Taiwan University. (He was on sabbatical from Santa Clara University, CA, USA.) He proposed a western-styled university to the government of Taiwan. Negotiations broke down when Chan insisted on dealing directly with President Chiang Ching-Kuo.

Dr. Chan tried again on yet another sabbatical in Hong Kong in 1980-81. (He had accepted an Honorary Professorship from the University of Hong Kong.) Again, nothing came of it.

The third attempt was not the lucky charm it appeared it would be. Chan presented his idea to Mr. Deng Xiao-Ping, the supreme leader of mainland China. He had lectured previously in China at the government's request. Thus, at the Graduate School of Academia Sinicia in Beijing in the summer of 1982, Chan resurrected his proposal; Deng studied it and said "yes."

Written up in Newsweek, The New York Times and even IEEE's The Institute, the proposed China Experimental University was to be a teaching and research center of advanced technology, the nucleus of a Chinese "Silicon Valley." The plan was to start by offering Masters programs that included working

Professor Shu-Park Chan, a Life Fellow, for abroad in US companies. However, the main source of funding from the Chinese government did not materialize. It was believed that politically conservative government officials had caused the halt. Dr. Chan, then 56, went back to the US to teach.

> Chan finally realized his dream in 1994 back in the Silicon Valley where he had been teaching since 1962. Colleagues, friends and many former students played a major role, he states. The International Technological University (ITU) opened in the Fall of 1994 with 23 graduate students. Since then, ITU has graduated over 50 Master's degree students in Applied Mathematics, Electrical Engineering, Computer Engineering and Software Engineering.

> Professor Chan welcomes the efforts of Life members interested in meaningful volunteer work at ITU, and to help make it a high-tech, international

educational model for the 21st century. Phone: 408-





War stories continued

My scanty experience with a German radar transmitter

In 1954, the Czechoslovak Army was emptying biologists learned that we had a source of its storage rooms. As a result, some schools received microwaves, we gave it to them. They were studying a lot of obsolete hardware. At that time I was a stu-microwaves' impact on insects with the hope that dent and part-time assistant to a Professor at the Czech Technical University's Department of Radio Engineering. I received the task of putting into operation a trophy, German 10 cm magnetron radar transmitter. (Interesting for me, in the "Wehrmacht" brochure the equipment was named "Rotterdam Gaeret." Later I found out that it was a re-engineering of an bugs couldn't possibly care less about the microwaves. American H2S radar found in a Stirling bomber shot down over Rotterdam in the night from February 2/3, 1943. This is the origin of the name.)

In few days, I managed to put the transmitter into operation despite the fact it had spent ten years in storage. It was working well, except that the hydrogen thyratron in the modulator had a tendency to explode from time to time. What was also interesting was that the Germans managed to develop a special antenna for it using four parallel dielectric rods. Recently, I saw a similar antenna being used for a satellite receiver.

Because we had no use for it as a radar, when the

microwaves would kill the bugs. At that time, there was a problem with wheat storage because some insects spoiled the wheat. We created a simple cavity and fed it from the transmitter (a kind of primitive microwave oven) and tried the effect of microwaves on a mixture of wheat and insects. Unfortunately, the

At the Department of Radio Engineering, we put into operation (also German-made) a radar working on decimeter waves used in their night fighters. These radars incorporated funny large tubes. (We called them "beer mugs.") Because these were used in the air force (Luftwaffe), the most important tubes were labelled with the letter "L." After the war, it became a popular activity to build radios using German military tubes. I keep as a souvenir two such tubes as a feedback receiver. It is still functioning.

Tibor Vasko, Life Member

Questions...

any Answers?

Can you help?

One of the things I miss by being retired is the networking we had at work with other highly skilled engineers. Whenever any of us had a domestic technical problem, we would compete with each other to find the best solution.

Now I live in an empty-nester community and they come to me with problems. I am happy to address them, but no one else with the high level of competence I had in my work environment is around to help me. Are others interested in starting a tech network for these problems? Or, at least, can someone help me with this one? Thanks.

I am having trouble with too much emphasis of high frequencies when I copy from an 8mm tape to VHS. Anyone with knowledge of this problem, please contact me.

> **Bob Garver, Life Fellow** <rgarver@erols.com>

Do you know?

IEEE Member Richmond G. Kent believes the following was posted atop the portals of the G. E. High Voltage Laboratory (Pittsfield, MA), circa 1930 (the Steinmetz Era): "What we know here is very little. What we are ignorant of is immense." What is the origin of this quote?

The G.E. Historian has discredited the notion. The IEEE History Center is stumped. However, in an effort to overturn every stone, the History Center has posted the query to ECHOES. That is, its threaded electronic bulletin board designed for discussing just this kind of historical mystery.

If any IEEE Life members have any insight, or want to follow the discussion, check out ECHOES on the History Center's Web site http://www.ieee.org/history_center. If you know something, but don't have access to the World Wide Web, you can also contact the Research Coordinator, Robert Colburn, at the IEEE History Center, Rutgers University, 39 Union Street, New Brunswick, NJ 08901-8538, Phone: 732-932-1066, Fax: 732-932-1193, or E-mail: <r.colburn@ieee.org>.

Internet for the chronologically challenged

Greetings to you, "Silver-Haired Surfers." That was the title of an article by Walter S. Mossberg in the November 1998 issue of Smart Money magazine. He said that we seniors "are flocking to the Internet in rising numbers, and sites aimed at seniors are sprouting like dandelions." Those of you who use and read about the Internet need no help from me in finding many senior-oriented sites and a lot more. Advice abounds in virtually every popular publication.

I will, however, comment about one site mentioned by Mr. Mossberg simply because it added some spring to my step and adventure to my spirit. (Most senior sites appear to be devoted to such depressing topics as aged care, chronic and terminal illnesses, wills, funerals and burials—pretty depressing stuff.) The Third Age site <www.thirdage.com> defines its audience as "the third age, a life style following youth and preceding old age—a time of life characterized by happiness, freedom and learning." I can go with that!

What they didn't say is it that the "third age" is also perceived as a time of disposable wealth. And they are out to get as much of it as they can, albeit in an entertaining way. Many of the intriguing paths that I followed through the site had a price tag at the end for a product, such as a book or a CD. Had I been in a buying mood, I might well have succumbed. Well, you have been warned.

I am not adverse to buying things via the Internet, but apparently I am in the minority. A 1997 survey of 2000 IEEE members (1043 respondents) found that only 24% would "consider" making a purchase over the Internet. This is roughly in line with the reported percentage of the general public that has made an Internet purchase in the last 12 months. There is a big gap between the number of people who look for information over the Internet, and those who actually make purchases. Since ordering by credit card over the phone is so widespread, this low percentage must result from fear. They must envision someone is bridged on the Internet just waiting to grab credit card numbers as they go by.

That fear seems to be abating somewhat, perhaps due to increased security—at least for the most sensitive transactions. I now access a secure site provided by my full-service broker for monitoring my accounts; but I have yet to make the leap into electronic trading. It has been reported that the average age for clients of full-service brokers is 63, while that of Internet traders is 41. In this case, I appear to be showing my age. Actually, I am not concerned with security but find that my broker discourages me from making the most egregious, impulsive mistakes, like buying at the top and selling at the bottom. By hindsight, however, I do miss some great opportunities like the day when I could have gotten IBM at \$88 had I acted immediately. Maybe I will give e-trading a whirl, and grab Dell on a dip.

It's never too late to begin using the Internet. There is tremendous social pressure to get into e-mail, if nothing else. A good friend, from my old days at Bell Labs, is a bit older than I and missed the wave of personal computer use. Once retired, he refused to have anything to do with either a computer or the Internet. That is until he was faced with some family events that demanded frequent communications with his far-flung adult children. Now he is a grateful, if not yet ecstatic, user of Web TV. There is hope for us all. Maybe.

My wife, now there's a challenge. Her friends send her messages via my e-mail address. She then picks up the phone and replies, usually into an answering machine. Maybe a reliable voice recognition system will bring her around. Bill Gates says they're working on it. If successful, will he be allowed to integrate this feature into the Windows OS? Good question.

> Fred Andrews, Life Fellow <f.andrews@ieee.org>











RE-SEED contact info

Web site: http://www.reseed.org/ Toll free phone: 1-888-742-2424

Phone: (617) 373-8388

E-mail: reseed@lynx.neu.edu

Write: RE-SEED, Northeastern University, Suite 378 CP, 716 Columbus Ave. Boston, MA 02120

Note: RE-SEED greatly appreciates the IEEE Life members' financial and human resource support. The quest now is to seek additional corporate/foundation sponsors. The goal is ultimately to make the program self-sustaining. Anyone who has contacts or knows ways to open specific major corporation doors is asked to contact RE-SEED. Thanks.

Submitting articles

We welcome articles for this newsletter. In general, published story lengths are:

quarter page—175 words half page—350 words

three-quarters page—525 words

full page—700 words

Acronyms should be spelled out once. Reference dates (years) should also be included. Editing, including for length, may occur. To discuss a story idea beforehand, contact me by e-mail <jo.martin@ieee.org>. Or, call Mary Campbell, Managing Editor, at (732) 562-5526.

The deadline for possible inclusion in the next issue is 9 April 1999. Please include a phone number and/or an e-mail address.

John E. Martin, Editorial Liaison

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Qualifications for Life member status

To qualify as a Life member, an IEEE member must be at least 65 years old, and the sum of the member's age and the number of years of paid membership must equal or exceed 100 years.

Under a 1994 Bylaw, now repealed, Life member status was granted to a member with 40 years of paid membership with no age requirement. Members who achieved Life membership status under the 1994 Bylaw will remain Life members.

Where to write

Have questions, opinions or problems? Contact the Life Members Committee or its Staff by writing to: IEEE Regional Activities, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, Fax: (732) 463-3657 or E-mail to: life-members@ieee.org.

The INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS, Inc. 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, USA

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