

Published by the Life Member Fund Committee

November 1980

#### A Letter from the Chairman

Dear Colleague,

There were 23 replies to my letter in the March, 1980, LMF Newsletter which involved (in part) non-Life Members who are 65 or older.

All were in favor of sending our Newsletter and Directory to the 65ers. (See page 8.) A wide variety of post-retirement careers and interesting activities are being enjoyed. Many of us assist charities and social institutions.

The VOLUNTEERS IN TECHNICAL ASSISTANCE (VITA) help developing countries. Many retired engineers contribute technical knowledge and experience to them through VITA. If you wish to help, write to VITA, 3706 Rhode Island Avenue, Mt. Ranier, Maryland 20822, for an application.

You will be asked to help on specific projects. For example, "Low Cost Development of Small Water-Power Sites."

You will interpret known technology in limited materials, tools, and skills available in these developing lands - a challenge in imagination and ingenuity.

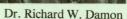
Interesting and most enjoyable programs are offered for Life Members at Electro, Midcon, Wescon, and the forthcoming Southcon - Atlanta, Ga. January 13-15, 1981. (See page 5.) If you can possibly attend, it will be most worthwhile.

I have attended an International Federation of Information Processing (IFIP) computer congress in Tokyo and also spent two weeks in China: Renewed old aquaintances; visited the Great Wall; found the Chinese healthy, working, car-less, but riding bicycles galore; people-liking; living in communes, and seeming to be content. In my opinion, we are fortunate to be reunited with a quarter of the inhabitants of the globe.

Sincerely yours,

Dr. Edwin L. Harder, Chairman 1980 Life Member Fund Committee







Dr. Robert W. Lucky

# Dr. Richard W. Damon is Newly Elected President, IEEE; Dr. Robert W. Lucky, V.P.

The annual IEEE election had some 33,000 participants in the vote. Dr. Richard W. Damon was elected President for 1981. Dr. Robert W. Lucky becomes the new Vice President.

Dr. Damon is Director of Applied Physics Laboratory, Sperry Research Center, Sudbury, Massachusetts. Dr. Lucky is Director of the Electronics and Computer Systems Research Laboratory, Bell Laboratories, New Jersey.

The new President has been involved with surface acoustic wave devices; advanced packaging technology; fiber optic data kinks and sensors; optical pattern recognition; materials for magnetic disc recordings . . . to name a few of his activities. An author, lecturer and teacher he is holder of six patents and has published 30 papers.

He has been a Student member of IEEE, which should be an inspiration to our current Student members. He became a Fellow of IEEE in 1968 and is a Fellow of the American Physical Society and a prominent member of the AAAS. He served on the IEEE Board of Directors, 1977-78 and has made extensive contributions to his Section, Conferences and Societies over the years.

All of our newly elected President's degrees (B.S., M.A., and Ph.D.) are from Harvard.

Our newly elected Vice President is a Fellow of IEEE and has served the Institute in a variety of ways. He was Vice President, Publications Activities, 1978-79; President, Communications Society during the same period and Vice President prior to his Presidency. He was Editor of the *Proceedings of the IEEE* for quite some time. Continued on page 6

## Robert R. Kline Reports on His Fellowship in Electrical History (Academic Year, 1979 - 1980)

The "second" IEEE Fellow in Electrical History, Robert R. Kline, has spent the year preparing for Ph.D. oral examinations which were taken in August. He completed a minor in history, and continued research on the history of electrical engineering. (The Fellowship, worth up to \$8,700, is financed by the Life Member Fund.)

Here is a list of courses taken and papers written by Dr. Kline:

## Fall 1979

- Seminar on History of Science in the 16th and 17th Centuries — David Lindberg. "The Roles of Science and Technology in Galileo's First New Science — the Strength of Materials."
- 2) History of American Technology Terry Reynolds. "Professionalism and the Corporate Engineer: Charles P. Steinmetz and the American Institute of Electrical Engineers," published in *IEEE Transactions on Education* in August, 1980.
- 3) American Economic History on the 19th Century — Morton Rothstein. "Technical Change and American Development in the Nineteenth Century," and "The Entrepreneur and American Economic Development in the Nineteenth Century."

## Spring 1980

- History of Technology Seminar Terry Reynolds. "Overalls and Grease: the Influences of Apprenticeship Courses on Electrical Engineering Education."
- 2) American Cultural History Daniel T. Rodgers. "Walden Two's Dept to American Intellectual and Cultural Traditions," and "Technocratic Utopias in American Thought and Culture."
- 3) Science in America Ronald Numbers. (Reading course).

Of significance to IEEE is his paper on Charles P. Steinmetz and the AIEE — "Professionalism and the Corporate Engineer." (LFM Newsletter, Nov. '79). Here is a brief report from the abstract in the Transactions . . .

As the Chief Consulting Engineer for the General Electric Company, a prominent socialist, and leader of the AIEE, Charles Steinmentz compromised between business demands and professional ideals when the Institute considered such issues as standardization, ethics, and social responsibility of the engineer. He had a theory of corporate socialism which influenced how he believed the AIEE should participate in the professionalization of electrical engineering. Since he thought the AIEE's main purpose was to improve the corporation's technical or

production function, the Institute's major role was the advancement of engineering knowledge. Thus, he thought the AIEE should maintain high membership standards, i.e., meaning engineering control rather than business control of the Institute.

When other activities, such as standardization, ethics, and social responsibility, came into conflict with corporate interests, he thought the AIEE should cooperate with business interests and retain its own autonomy. AIEE should limit itself to technical functions and not address social issues, according to Charles Steinmetz.

# IEEE Centennial History of IEEE Underway by Michal McMahon, P.H.D.

The Centennial Committee has commissioned Dr. Michal McMahon to write the history of IEEE. He is a native of Louisiana and received his doctorate from the University of Texas. He taught at Kansas State University (Manhattan) for several years. During most of the seventies Dr. McMahon was director of the historical department at the Franklin Institute Science Museum and Archivist of the Franklin Institute-both in Philadelphia. For about ten years he has been writing on the role of engineers and technologist in society, and has just about completed a study of engineering and technology in the nineteenth centry. He is married, has two sons and lives in Philadelphia.

By reading IEEE publications and a portion of the archives of the Institute, Dr. McMahon intends to cover the entire century. His research on the history of electrical and electronics engineering societies began in 1975 when he started working on the paper, "Corporate Technology: The Social Origins of the AIEE," for the bicentennial issue of the *Proceedings of the IEEE*.

Now turning to specific topics which require extensive research, Michal has begun to assimilate material for his book. A preliminary outline should be completed by the end of this year. A special IEEE advisory committee is assisting him in his work. The committee is expected to help direct the energies of a research assistant for Michal in 1981.

Recently he has concentrated on the IRE's first three decades - approximately to World War II.

"Reading the Proceedings covering those years has been immensely rewarding," he said, "not only in the usual ways of supplying lists of officers and committees, but in highlighting the many occasions when the AIEE and IRE began to cooperate."

On a recent visit to Cleveland he investigated the papers of many electrical engineers in that Recent Life Member
Patrick E. Haggerty,

## Renowned Member of IEEE, Dead at 66



Patrick Eugene Haggerty, honorary chairman and general director of Texas Instruments, Inc., died October 2, 1980, at Presbyterian Hospital in Dallas after a brief illness.

Mr. Haggerty, who joined IRE in 1945, was co-chairman of the committee which effected the merger of the Institute of

Radio Engineers (which he served as president in 1962) and the American Institute of Electrical Engineers; thus, establishing the IEEE. He received the Founders Award, IEEE, in 1968.

He became a Fellow in 1958 and just this year qualified for a Life Membership.

A son of a railroad telegrapher, he was born in North Dakota in 1914. He majored in electrical engineering at Marquette University and received his Bachelor of Science in 1936. His academic records in electrical engineering still stand today.

After graduation he joined the Badger Carton Company as production manager and rose to assistant general manager by the time he left to join the Navy in 1942. During World War II he served as a Lieutenant in the Bureau of Aeronautics in Washington. He was responsible for the procurement and productions of electronic equipment for Naval aircraft.

While in Washington he met and impressed J. Erik Jonsson, a founder of Geophysical Service, Inc., the firm that evolved into Texas Instruments. He joined the company in 1945 and eventually rose to vice president in 1951, president in 1958 and chairman in 1966 and remained in that position until he retired in 1976.

Pat Haggerty was also chairman of the board of trustees of Rockefeller University in New York City, a position he had held since 1975.

At Texas Instruments he was responsible for broadening and diversifying, through manufactured products, the 16-year old company engaged in geophysical exploration for oil. In the late forties he realized that the most exciting electronic developments of the preceding 25 years were based on circuitry and the way electronic components were put together. Also . . . that the next quarter century would be tied to abilities to comprehend, create, manipulate, and fabricate new materials with partic-

ular emphasis on knowledge at the structure-ofmatter level.

Under his leadership, TI entered the semi-conductor field as a licensee of Western Electric Company. In just two years the company pioneered the first commercially available silicon transistors and the first germanium radio transistors. Result: the first pocket radio. The transistors, of course, paved the way for the world-wide semiconductor market. Ten years after the invention of the transistor, the first practical integrated circuit was invented in TI laboratories. Pat Haggerty's creative management skills, penetrating technical insight, and inspiring leadership have been fundamental to the far-reaching benefits to society brought about by these products.

He held honorary degrees from several universities. Other honors include the Electronics Industries Association Medal, the Industrial Research Institute Medal and the Brotherhood Award of the National Conference of Christians and Jews. He also was The Fritz Medalist in 1971 and the recipient of several other honors and awards.

Mr. Haggerty was an ardent yachtsman. His sloop, Bay Bea, was second in Class C in the 1966 Transatlantic Race; first in class and third over-all in the 1966 Southern Ocean Racing Conference. He was one of seven members of the syndicate which sponsored the Intrepid, winner of four out of four races competing with Australia's Dame Pattie in the America's Cup Races in 1967.

He is survived by his wife, the former Beatrice Menne, two sons, three daughters and 13 grandchildren.

Patrick Haggerty's vision and leadership in his industry and the IEEE, to which he devoted so much of his efforts, have earned the respect and appreciation of all of us.

## IEEE Centennial History Continued from page 2

area (including Charles Bush) at the Archives of Science and Technology at Case Western Reserve. He is also involved in reading journals and materials at IEEE headquarters in New York City, not the least of which is listening to tapes of participants in the merger.

Some interviews of knowledgeable IEEE members are planned this year.

"Beyond this year, my only firm plans are to organize a session on engineering in the twentieth century for the 1981 meeting of the Society for the History of Technology," he said. He will read a paper then on some topic concerned with the two institutes' activities between the two world wars.

# Life Members at Wescon/80 Enjoy Special Session on Electric Automobiles

Along with a record crowd of over 62,000 at Wescon/80 (Anaheim, Sept. 16 - 18), there were 80 Life Members who thoroughly enjoyed the special arrangements for them.

The chairman of the Wescon Life Member Program Committee, Albert W. Atwood, Jr., reports that a "fascinating time was had by the many Life Members who came to the Anaheim Convention Center this year."

Pre-registration was part of the program and a hospitality suite was available each convention day.

Specially reserved tables accommodated Life Members at the Keynote Luncheon. Dr. Simon Ramo, one of the founders of TRW addressed the group.

"The most popular event of the entire convention in my opinion," said Mr. Atwood, "was the Special Session held wednesday morning on the state-of-the-art of electric automobiles, sponsored by the Life Member Committee." Over 600 engineers heard a panel of four management executives, moderated by Thomas A. Barber, manager, electric and hybrid vehicle project, Jet Propulsion Laboratory, Pasadena.

Mr. Barber presented a 15-minute film on the DOE ETV 1 test car which was the subject of the first three speakers. His topic was "Electric Vehicle Overview." Tests show progress in weight, streamlining and electronic controls for regenerative braking and speed regulation, torque and acceleration. However... electric cars are limited to 50-70 miles before recharging of batteries is required

and - pessimistically - taking eight to ten hours to do it.

The manager of advanced development engineering, Globe Union Inc., Milwaukee, Mr. Conrad E. Weinlein, described the advanced lead battery used in the ETV 1 Test auto. He also discussed many other types of batteries, but comes to the conclusion that all have more disadvantages than advantages at this development stage.

Dr. James Wilson, manager of power circuit and drive units, General Electric Company, Computer Research and Development Center, Schenectady, N.Y., showed slides detailing the new high power transistors. He also covered the design of the power conditioning unit for the ETV 1 test car. Of special interest was the circuit and houseing of the microcomputer - the "brains" of the car.

The most enthusiastic speaker was Mr. Robert R. Aronson, president of Electric Fuel Propulsion, Troy, MI. He has a patented fast-charge battery which can be 80% charged in 45 minutes and fully ready-to-go in an hour. He showed the plates involved. His film presented the testing of the future Silver Volt Electric car - a 6,300 lb. luxury station wagon which will go 70 miles per hour. "It is capable of accelerating to 30mph in 7.5 seconds," he said.

Mr. Aronson challenges all electric car manufacturers to a 3,500-mile race (Caltech to MIT) similar to 1968's - a race which the Caltech car won using an earlier version of Mr. Aronson's battery.

Incidentally, about 20 people in the audience, when asked, had experimented in building an electric automobile.

Continued on page 6

# IEEE Life Members Photographed at Wescon / 80 September 17, 1980



Seated (L. to R.) - James Hicken, Dr. William H. Pickering, \*, W. Ross Appleman, Albert W. Atwood, Jr. - Chairman, George A. Davis - Vice Chairman, Harry J. Keeling, \*, \*; Standing (L. to R.) \*, Bradley Cozzens, Joseph R. Pernice, \*, Louis H. Powell, \*, \*, Gilbert R. Woodman, Charles L. Sidway, \*, Harold S. Endicott, \*.

#### Electro 80

Although we can account for about eighty Life Members who attended Electro 80 at the Boston Sheraton, May 13-15, ninety sent in their advance registrations.

Accommodations were excellent. A large and comfortable LMF hospitality suite was provided by Electronic Conventions, Inc. Coffee, soft drinks, a - d Danish pastries were offered each morning with coffee replenished throughout the day. Members of the Life Member Committee greeted attendees from 9 a.m. to 5 p.m. each convention day. A typist was present to prepare additional badges.

Charles W. Wycoff, photographic scientist, gave a slide film presentation on continuing research of Loch Ness, Scotland. As anticipated, he did not disappoint the group. His Wednesday morning session, providing a description of the equipment and methods to determine the presence

and nature of large animate objects inhabiting Loch Ness waters, delighted an audience of sixtyeight people.

Conclusions: Yes, some large-bodied, long-necked animals are there.

Luncheon followed, compliments of Electro's Board of Directors, for 79 Life Members. Afterward, Dr. Edwin Harder reviewed LM Fund Committee activities and Fund expenditures. (A full financial report will appear in the March LMF Newsletter.)

Professor Cleveland states that the general reaction to the Life Member activities at Electro was most favorable. Since 1976, attendance is up about 33%. "Excellent preparation and follow through by Dale Litherland of Electronic Conventions, Inc., deserves special commendation," Prof. Cleveland said. A pat on the back also goes to LFM Committee vice-chairmen Edmund Povey and Julian Tebo.



Electro/80 was well attended by Life Members. Front row (L. to R.) P. Roland Hanson, William M. Hall, Arthur Miller, Walter O. Nisula, Richard H. Frazier, Truman S. Gray, Leslie H. Ferrier, Edmund H. Povey, Laurence F. Cleveland, Bell A. Cogbill, Harold P. Higgs, B.S. Diamond, Warren H. Falls, J.F. Reintjes. Back Row (L. to R.) Milo P. Hnilicka, Gordon S. Brown, John J. McNiff, John P. Lienesch, Alexander S. Edmonston, Donald E. Maxwell, Donald B. Sinclair, Henry B. Brainerd, Thomas J. Carroll, Alan W. Burke, Harold A. Baines, Edwin L. Harder, W.N. Tuttle, Jack Rosembaum, Sam Zaslavsky, Laurence Batchelder, David Vitrogan, Paul Zbar, Mario Messa, Roger M. Peirce (Standing, Left).



Front Row (L. to R.) G. Wilmer Maihl, Theodore Braaten, Herbert W. Stewart, Julius Dorfman, Arthur Bronwell, A.R. D'Heedene, Hyman Yamins, Julian D. Tebo, J.D. Ryder, Ernst Weber, Ronald L. McFarlan, F.R. Stansel, David V. Buchanan, Iring Rowe. Back Row (L. to R.) William E. Barbour, John G. Trump, Samuel Seeley, Hollis S. Baird, John B. O'Keefe, Frank Lyman, William Burpee, Harry G. Johnson, S. Blair Lent, Walter J. Connolly, Howard Nash, Nicholas Stadtfeld, Davis Schuster, Herbert M. Wagner, Harry E. Stockman, E.B. Staples, Sid Schulz.

## **IEEE History Center Begins Operations**

The Center for the History of Electrical Engineering was launched at headquarters in New York in mid-August. Under the guidance of the History Committee, the Center will co-ordinate the various historical activities of the Institute and actively promote electrical history among engineers, historians and the general public.

Specific activities of the Center include preserving and organizing the archives of the Institute, cataloging important sources of historic documents and artifacts. The Center will preserve and make accessible material not already in libraries or museums. create exhibits, maintain files of photographs, articles and bibliographies, and respond to public inquiries on the history of electrical engineering. The Center will plan special events in 1984, the Institute's Centennial year. It is the administrator of the IEEE Fellowship in Electrical History, financed since 1978 by the Life Member Fund. It is hoped that the Center will soon be able to find support for additional projects, including an extensive oral history program. In 1981 the Center begins publication of a Newsletter about its activities and provide a forum for information about electrical history generally.

The Center's director is Dr. Robert Friedel, who comes to the IEEE after several years with the Museum of History and Technology of the Smithsonian Institution and a stint as an assistant professor of history at Clarkson College. Dr. Friedel received his PhD. in history of science and technology from Johns Hopkins in 1977 and has produced a number of articles, reviews and exhibits on the history of technology. He is now chairman of the Documents Committee of the Society for the History of Technology.

The Center is looking particularly to the Institute's Life Members for help and guidance. The staff hopes to assist retired engineers in their own historical efforts and provide them with opportunities to participate in the Center's projects. As the most experienced members of the profession, Life Members can offer a unique perspective on the significant events in which they have participated or which they observed first-hand. No group is more important in the effort to preserve and understand our electrical heritage.

#### Editor's Note:

If you have any suggestions or ideas for your Life Member Fund Newsletter, please let Ed Harder or Charles Stewart know your thoughts.

#### Life Members at Wescon/80 Continued from page 4

Three electric cars were on display, thanks to arrangements by the LMF Committee - two loaned by JPL; a converted Rabbit by South Coast Technology; and an electric van by Jet Industries. Also on display was a restored 1912 Baker Electric, powered from a solar panel in its roof containing 10,640 silicon photovoltaic cells, courtesy of International Rectifier Company.

Two films on electric cars were shown in the Wescon film theatre every day.

On Thursday, Life Members enjoyed an all-day field trip to Northrup Corporation in Hawthorne. They were briefed about and witnessed the operation of the moving base flight simulator and then went inside it. After luncheon the group toured facilities for making carbon fibre parts for aircraft. The latter have twice the strength of steel but weigh half as much as an equivalent aluminum part. Afterward, films were shown of the MX missile guidance system now being tested at Northrup.

## **New President and Vice President**

Continued from page 1

He also is a lecturer, author of two books and contributor to several others. He has published 35 papers on digital communications and holds nine patents.

He has earned the BSEE, MSEE and Doctorate from Purdue University and is the recipient of the Distinguished Alumnus Award from Purdue.

### "President Elect"

#### **Constitutional Amendment Approved**

IEEE members cast 23,333 votes for the amendment and 9,514 against - a 71% majority for the President-Elect concept, the Clarification of the roles of Delegates and the Assembly, and Procedural simplifications.

The first President-Elect will be elected in the Fall of 1981 to start office in 1982.

The adoption of this amendment shifts the current three-year term of President, Junior Past President and Senior Past President by replacing the latter office by the President-Elect office; thus guaranteeing that a President will have had at least one year of experience on the Board before assuming office. The President-Elect concept is consistent with the practice of many other professional societies.

The amendment also clarifies the roles of the membership-elected Delegates, who constitute the Assembly, which has sole authority to elect the additional officers and Directors not elected directly by the membership.

It also simplifies the Constitution by transferring appropriate guidelines and practices to the Bylaws.

#### Winners Announced

## Student Prize Papers Awards Raised to \$5,250; Supported by Life Member Funds in 1980

The LMF Committee decided to increase support of the Student Prize Paper Contest for 1980 from \$3,500 to \$5,250. This decision was based on the desire "to encourage greater interest in this program and offset inflation."

The prizes are: \$300 First Prize, \$150 Second Prize, and \$75 Third Prize.

As of the end of October, there were 27 winners (Regions 1-8) who received a total of \$3,075. Twenty colleges and universities were represented by the participants.

Region	Name	Prize	School	Subject
1	Robert F. Popoli and	1st	Cooper Union	"Computer-Aided Modeling for
	Paul J. Palamara			Kalman Filter Implementation"
1	Fred Scharf and	2nd	Cooper Union	"Alpha Memory Telephone
	John A. Langan			System"
1	Denise Camp	3rd	Rensselaer Polytechnic Institute	"Neonatal Apnea: Preliminary Study and Statistics Rapport for the development of a Microprocessor— based Apnea Monitor"
2	William Billowitch	1st	Lehigh University	"Synthesis of Fourth-Order Loud- speaker System Enclosures for a Given Driver"
2	Curt Notestine	2nd	Wright State Univ.	"Multiple Oscillatory Air Jets"
2	Robert Morford	3rd	Swarthmore College	"Wire Minimization—Circuit Design"
3	Michael A. Montgomery	1st	University of Tennessee	"Design of a High -Resolution Frequency Counter"
3	Christopher Simpson and Eric H. Weimers	2nd	Tulane University	"A Microprocessor-Based Controlle for a Solar Space Heating System"
3	Ronald C. Atwell	3rd	State Tech. Inst. at Memphis	"A Microprocessor-Based Program- mable Logic Controller System"
5	Gary Stearns	1st	So. Dakota School of Mines and Tech.	"Software Controlled Dot Matrix Printer"
5	James Surber	2nd	University of Kansas	"Insect Locomotion Compensation for Behavioral Studies"
5	David J. Gruber	3rd	U.S. Air Force Academy	"A Digital Positioning Sensing Mechanism"
6	Kelin Kuhn	1st	Univ. of Washington	"Implementation of Distributed Microprocessor Systems in Custom Heavy Trucks"
6	Greg Banks	2nd	Univ. of Nevada	"Dual Programmable DC Power Supply"
6	Mary N. Carter	3rd	Utah State University	"A Photographic Light Analyzer and Timer for Processing Black and White Prints"
7	Donald Macpherson, Jeff Nolan, and Steve Shaw	1st	Conestoga College of Applied Arts and Technology	"A Microprocessor Based Printer Controller"
7	Marcel Tutt	2nd	University of Waterloo	"A Numerical Technique for Studying Microstriplines Using the Method of Moments"
7	Marc Barchuk and Steve Glen Collins	3rd	Red River Comm. College	"Computer Monitored Temperature Sensing Unit"
8	J.A. del Alamo	1st	Ciudad Universitaria Madrid, Spain	"Photovoltaic Solar Energy Conversion by Means of Bifacial DSSF Solar Cells"
8	H. Persson	2nd	Chalmers Inst. of Tech. Goteborg, Sweden	"Blissograph. A Printer for Bliss Symbols"
8	S. Jespers	2nd	Universite Catholique de	"Study and realization of a High
	Ph. Thibaut		Louvain	Speed Specialized Processor Design-
			Tervuran, Belgium	ed for a Network Analyser'

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Here's Why ...

# This Newsletter Being Sent to All IEEE Members 65 Years of Age and Older

The Life Member Fund Committee recommended to the Executive Committee that the Life Member Newsletter be distributed to members 65 and over.

The additional funds needed for extra copies and mailing is money well spent, according to the LMF Committee for the following reasons:

"This post-65 group of non-Life Members is made up of peers and contemporarites of Life Members. It is unwise to leave them out of communication for several years until they become Life Members. The Newsletter will strengthen their connection with the Institute and with the Life Members and help sustain their interest - a definite asset to the Institute."

It is well now to reiterate the qualifications to become a Life Member: The individual must have accumulated enough years of Membership in IEEE so that those years plus his/her age equals 100.

To avoid any misunderstanding, however, those of you who are not Life Members should not feel that you are receiving similar benefits as Life Members. This Newsletter comes strictly as a matter of information and nothing more is intended or implied. If you like the idea, Mr. Harder, the Life Member Fund Committee Chairman, would welcome your letter. He can be reached through IEEE Headquarters in New York City, in care of Charles F. Stewart

The LMF Committee is now considering inclusion of all IEEE members 65 and over who are not Life Members in the 1981 LMF Directory in a special section.

# To the New Life Member and 65'ers - Some Facts for You...

The Board of Directors and the Technical Activities Board encourage reduced conference fees for Life Members. The essence of the policy (1978) which can affect your payment for attendance at various conferences reads:

Reduced fees, or waiver of fees, or fee differential for Students, unemployed IEEE members, retired members, and for Life Members, and for special registrants . . . are permitted at the discretion of the Conference Committee.

#### About Society Membership

An IEEE Life Member with not less than five years of membership in a Society may also be designated a Life Member in that Society. Thus, the LM would receive free of charge all technical periodicals - Transactions, Magazines and Journ-

als - offered by each Society for which the fiveyear requirement is satisfied.

To avoid mailing of unwanted publications, Society Life Members are asked *every year* to confirm their continued interest in requested publications.

There are two options:

- 1. Limited Service. You remain a member of the Society, but receive only Newsletters, Conference announcements and other special mailings.
- 2. Full Service. In addition to the above, you receive Magazines, Transactions and Journals that you list on the form which is sent each year in July.

Unless you *return* the form, the IEEE Service Center will assume you no longer want the Society publications.

As a Life Member, you automatically recieve SPECTRUM (unless indicated in writing otherwise). All other publications - Conference Records, Proceedings of the IEEE, IEEE Press Books, IEEE Membership Directory, IEEE Standards Dictionary of Electrical and Electronics Terms, etc., are available at regular member rates.

Our intention here is to clarify any misunderstanding about qualifications for various publications - those you receive free and those for which there is a charge to Life Members.

Treetings

of the Season

and best wishes

for a Happy New Year