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ELECTRICAL ENGINEERING®

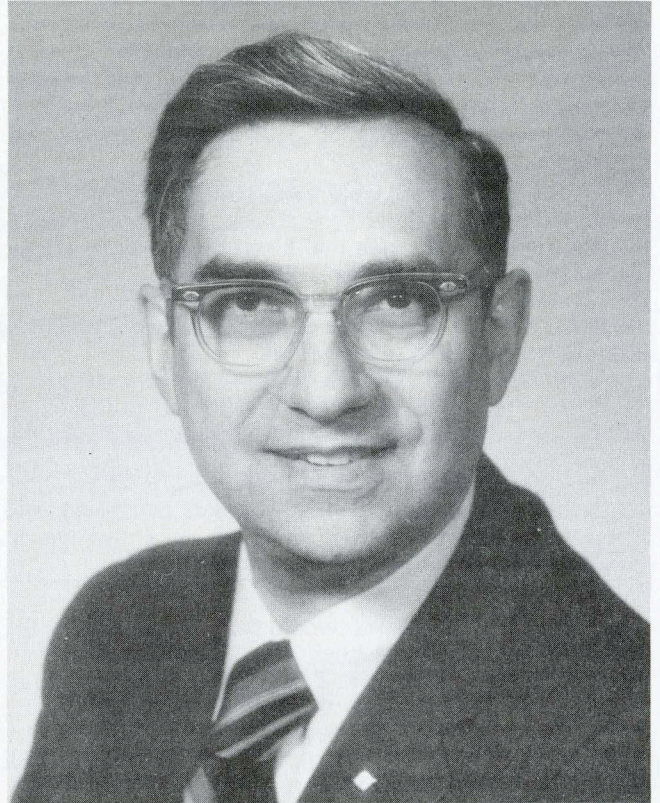
December 1979 **85**

IEEE'S FIRST PETITION PRESIDENT ELECTED

Leo Young, who qualified for this year's ballot by submitting 3750 signatures of members, defeated the Board of Directors' candidate, Burkhard Schneider, for the 1980 presidency, by a margin of 22 947 to 18 544 votes.

Dr. Young served on the Board of Directors as executive vice president in 1979 and as Division IV director from 1971 through 1974. He is a staff consultant in the Electronics Technology Div. of the Naval Research Laboratory in Washington, D.C.

In accepting his loss, Burkhard Schneider, who had campaigned for balanced technical and professional programs, said, "One benefit of an election between two well-continued, p. 2



Leo Young, president-elect

Validated results of IEEE's 1979 election

President		Division V director	
Leo Young	22947	Dick B. Simmons	3282
Burkhard Schneider	18544	Merlin G. Smith	2527
Executive vice president		Division VII director	
C. Lester Hogan	35,552	James B. Owens	5112
(unopposed)		(unopposed)	
Region 1 director		Region 3 vice chairman	
Hans C. Cherney	4657	Joseph M. Biedenbach	1682
Joel B. Snyder	3240	K. Reed Thompson	2346
Region 3 director		Proposed constitutional amendments	
David C. McLaren	2130	(require two-thirds vote to pass)	
Harry P. Weber	1931	Proposition One (allowing election directly by membership of the Vice President for Professional Activities)	
Region 5 director		For	18 541
Arwin A. Dougal	1395	Against	21 387
John D. Peebles	1181	Fails	
John Zaborszky	815	Proposition Two (allowing election directly by membership of the Nominations and Appointments Committee)	
Region 7 director		For	19 859
J. J. Archambault	1521	Against	20 227
(unopposed)		Fails	
Region 9 director			
Eduardo Bonzi Correa	251		
Oscar Fernandez	257		
Division I director			
Jose B. Cruz Jr.	1122		
Sydney R. Parker	997		
G. Robert Redinbo	839		
Division III director			
Edward J. Doyle	2242		
Louis J. Urban	2115		

NEWS SUMMARY

IEEE MEMBERSHIP INCREASES

IEEE's total membership, as of Oct. 31, is 194 460, an increase of 6.03 percent from 1978. U.S. membership increased 5.5 percent, to 161 648, and membership in Regions 8, 9, and 10 is up 10.9 percent, to 21 978. IEEE student membership grew 9.8 percent, to 24 272.

CONGRESSIONAL FELLOWSHIP COMPETITION

Applications are now being accepted for the two 1981 Congressional fellowships available to IEEE members. The selected fellows will provide a source of technical knowledge as they serve one year on the staff of a senator, Congressman, or Congressional committee. The fellows will be selected on the basis of technical competence and public and Institute activities. Specifically excluded as selection criteria are: age, sex, race, creed, ethnic background, and partisan politics. However, the fellow must be a U.S. citizen and an IEEE member for at least four years.

For further information contact W. Thomas Suttle at the Washington office.

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REGIONS SPLIT IN PRESIDENTIAL- CANDIDATE SUPPORT

Leo Young carried Regions 1, 2, and 6, where voter turnout was heaviest, by large margins, but Burkhard

Schneider carried Regions 3 and 4. Dr. Young carried Region 5 by a narrow margin. (See table)

Breakdown of regional vote in 1979 IEEE presidential election

Candidate	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8	Reg. 9	Reg. 10	Total
L. Young	5381	4061	2079	1996	1956	5178	855	809	245	387	22 947
B. Schneider	3758	2959	2305	2504	1812	3212	820	532	307	335	18 544

ELECTION, continued

qualified candidates is that the Institute will move forward. I wish Leo Young well and will continue to be active in IEEE as the opportunities arise."

Dr. Young called his victory an endorsement of his stand for strong programs in professional as well as technical activities, rejecting the idea that it symbolized anti-Board-of-Directors sentiment among IEEE members.

"On the technical side, I think IEEE is doing pretty well," he said. "The group/society structure, which is now more than 20 years old, is working well."

"On the professional side," he said, "my main thrust will be to re-emphasize the member-oriented activities and limit ourselves in public affairs to those areas in which we are expert."

CONSTITUTIONAL AMENDMENTS

Both Proposition 1, which would have amended the IEEE Constitution to have the chairman of USAB elected by the members, and Proposition 2, which would have amended the Constitution to have the members elect the IEEE Nominations and Appointments Committee, which among other duties, recommends nominees for some of IEEE Board of Directors' seats, were defeated.

The USAB chairman is now elected by an annual meeting of IEEE's 20 directors, who are directly elected by the members. Three standing members, the incumbent and two past presidents, and nine other members selected by the Board of Directors now make up the Nominations and Appointments Committee.

TECHNOLOGICAL POLICY CONFERENCE

The steering committee for the fourth annual technological policy conference met for the first time in Washington, D.C., on Sept. 11, under the chairmanship of Russell C. Drew of Systems Control Inc.

Co-sponsored by TAB and USAB, the conference is scheduled for April 28-30, 1980, at the Hyatt Regency in Washington. The theme will be "Global Competition in the 80s." Call or write the USAB Washington Office, if you plan to attend or want additional information.

PRICE OF IEEE JEWELRY INCREASES

Because of the recent increase in the price of gold, replacement costs of IEEE jewelry have skyrocketed. The price of member pins has increased from \$8 to \$18 and the price of tie bars from \$10 to \$25, following three- and four-fold increases in basic jewelry.

USAB NEWS

NUCLEAR POWER CONFERENCE SCHEDULED

IEEE and the Nuclear Regulatory Commission will sponsor a conference entitled "Advanced Electrotechnology Applications to Nuclear Power Plants" on Jan. 15-17 at the Shoreham Americana Hotel in Washington, D.C.

The conference will consist of both general sessions and eight workshops. The topics of the workshops, which will be conducted simultaneously, will be:

- Systems Management Techniques Panel
- Reliability Engineering Panel
- Risk Assessment Panel
- Software Reliability Verification and Validation Panel
- Smart Instrumentation Panel
- Operational Aids—Command Control and Communications Panel
- Education, Training, and Simulators Panel
- Simulation and Analysis Panel

The major speakers will include Leo Young, incoming IEEE president, Jerome Suran, IEEE president, John Ahem, NRC commissioner, John Deutch, undersecretary of energy, and Congressman Mike McCormack (D-Wash.), chairman, subcommittee on energy research and production, House Science and Technology Committee. The Conference will bring representatives of utilities, manufacturers, and regulators in contact with IEEE members with expertise in communications, aviation, and aerospace technologies.

CONGRESSMEN PRAISE USAB EFFORTS

Speaking at a USAB luncheon on Research and Development, Sen. Charles Mathias (R-Md.) praised USAB efforts toward legislation to encourage R&D.

He said: "I applaud your mission and hope to take advantage of your offer of assistance. Your participation in the legislative process can have a great impact on what we do. Engineers are trained to solve problems and we need problem-solvers now, more than ever before, because we face more and more complex problems today than at any period in our history. We also need leadership, which we hope you can help provide."

Sen. Mathias' address was commended by Sen. Harrison H. Schmitt (R-N.Mex.) and placed in the *Congressional Record*.

Electrical Engineering is a management newsletter on IEEE operations intended to encourage communication among all organizational entities and the staff. *Electrical Engineering* is published bimonthly by The Institute of Electrical and Electronics Engineers, 345 East 47 Street, New York, N.Y. 10017—Telephone (212) 644-7562.

Electrical Engineering is sent without cost beyond dues to officers of IEEE boards, committees, divisions, societies, groups, technical councils, conferences, regions, regional councils, sections, subsections, chapters, and branches. Second-class postage is paid at Piscataway, N.J.

Names and assignments of IEEE staff members referred to in *Electrical Engineering* are listed on page 4 of *IEEE Spectrum*.



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Announces the 8th Annual Competition for

1980-1981

Congressional Fellowships

A CONGRESSIONAL INTERNSHIP
FOR MEMBERS OF IEEE

PROGRAM: Electrical and Electronics Engineers and Allied Scientists are competitively selected to serve a one-year term on the personal staff of individual Representatives or Senators or on the professional staff of Congressional Committees. The program includes an orientation session with other Science-Engineering Fellows sponsored by the American Association for the Advancement of Science (AAAS).

PURPOSE: To make practical contributions to more effective use of scientific and technical knowledge in government, to educate the scientific communities regarding the public policy process, and to broaden the perspective of both the scientific and governmental communities regarding the value of such science-government interaction.

CRITERIA: Fellows shall be selected based on technical competence, on ability to serve in a public environment and on evidence of service to the Institute and the profession. Specifically *excluded* as selection criteria shall be age, sex, creed, race, ethnic background, and partisan political affiliations. However, the Fellow must be a U.S. citizen at the time of selection and must have been in the IEEE at Member grade or higher for at least four years. Additional criteria may be established by the selection committee.

AWARDS: IEEE plans to award at least two Congressional Fellowships for the 1980-1981 term. The Electron Devices Society will fund a Fellow, if a suitable candidate possessing technical competence in the field of electron devices is found. Additional funding sources may permit further expansion of awards.

APPLICATION: Further information and application forms can be obtained by calling W. Thomas Suttle (202) 785-0017 at the IEEE Washington, D.C. Office or by writing:

Secretary, Congressional Fellows Program

The Institute of Electrical and Electronics Engineers, Inc.

To Dec. 31, 1979: 2029 K St., N.W.

Washington, D.C. 20006

Effective Jan. 1, 1980: 1111 Nineteenth St., N.W.

Washington, D.C. 20036

Applications must be postmarked no later than April 30, 1980 to be eligible for consideration.



United States Activities Board

Summary of USAB Awards for Professional Activities

<u>Name of Award</u>	<u>Distinctive Features</u>	<u>Presentation</u>
The IEEE United States Activities Board Award for Professionalism	To honor members of the engineering profession or allied arts and sciences in the United States for dedicated effort and successful accomplishments in advancing the social, economic, legal and ethical aims of IEEE professional activities, as defined by the IEEE Constitution	One annually; engraved plaque
The IEEE United States Activities Board Award for Distinguished Public Service (to the engineering profession)	To honor individuals outside the engineering profession for contributions to furthering the professional goals of IEEE by such means as (but not limited to) promulgating laws or regulations benefiting the profession; creating an internal industrial environment to foster professionalism; creating curricula and/or publications designed to enhance professionalism	One annually; engraved plaque
The IEEE United States Activities Board Citation of Honor	To honor an individual who has made outstanding contributions toward achieving recognition of national professional activities as defined by the IEEE Constitution	One to four per year; engraved plaque
The IEEE United States Activities Board Regional Professional Activities Award	To recognize those individuals selected by their respective Regions for their leadership efforts in advancing the professional aims of IEEE on a national, regional or local basis	One per Region per year; engraved plaque
The IEEE United States Activities Board Certificate of Appreciation	To recognize specific contributions, achievements and individual efforts in the development and implementation of professional activities at all Institute levels	Indefinite number per year, as warranted by suitable accomplishment

Deadlines for receipt of nominations for USAB Awards is May 15, 1980. Nomination forms and complete information are available from the Washington Office. To submit nominations or request information, write to:

Secretary, USAB Awards and Recognition Committee
The Institute of Electrical and Electronics Engineers, Inc.

To Dec. 31, 1979: 2029 K Street, N.W. Effective Jan. 1, 1980: 1111 19th Street, N.W.
Washington, DC 20006 Washington, DC 20036



The Institute of
Electrical and
Electronics
Engineers, Inc.

Recommendation For USAB Award

Date _____

NOMINEE:

NOMINATOR:

Name _____
Address* _____
Phone* _____

Name _____
Address* _____
Phone* _____

AWARD RECOMMENDED: (See Reverse side)

- | | |
|--|---|
| <input type="checkbox"/> USAB AWARD FOR PROFESSIONALISM | <input type="checkbox"/> REGIONAL PROFESSIONAL ACTIVITIES AWARD |
| <input type="checkbox"/> USAB AWARD FOR DISTINGUISHED PUBLIC SERVICE | <input type="checkbox"/> CERTIFICATE OF APPRECIATION |
| <input type="checkbox"/> USAB CITATION OF HONOR | |

CONTRIBUTIONS RELATED TO AWARD: (1 or 2 paragraphs) (Continue on separate sheet, if necessary)

*Note: Please give preferred mailing addresses and telephone numbers for daytime contact.

PLEASE RETURN FORM TO: Chairman, USAB Awards and Recognition Committee, IEEE, 2029 K Street, N.W., Washington, D.C. 20006

ACTION BY USAB AWARDS AND RECOGNITION COMMITTEE: APPROVED YES NO RESUBMIT WITH MORE JUSTIFICATION

BY _____ DATE _____



Who to call for action at IEEE

Member Concern	Headquarters Contact	"Hot-Line" phone #	Member Concern	Headquarters Contact	"Hot-Line" phone #
HEADQUARTERS 345 East 47 St., New York, NY 10017 (212) 644-ext.					
General Manager's Office (questions regarding overall Institute policy only)	Eric Herz General Manager	7910	IEEE Press	Reed Crone	7557
	Renee Panero	7910	Publication Costs	Otto Vathke	7551
			Reprint Permission	Erika Beqaj	2158
Controller's Office	Thomas W. Bartlett Controller	7748	Copyright	Patricia Penick	7550
			General Publication Information	Patricia Penick	7550
Administration	Charles F. Stewart, Jr. Staff Director	7769			
Corporate Services (questions relating to activities of: IEEE Executive Committee, Board of Directors, Long Range Planning Committee, Nominations and Appointments Committee)	Emily L. Sirjane Staff Director	7757	Technical Activities (overall policy only)	Neil D. Pundit Staff Director	7890
	Veronica Lewis	7758	General Information	Karen Petovello	7890
	Betty J. Stillman	8097	External Interface	Audrey R. Bickel	2123
	Barbara Henry	7647	TAB General Activities	Esmi L. Bidstrup	7868
			TAB Secretariat	Stephanie Lewis	2122
President's Office	Betty J. Stillman	8097	S/G/C Activities	Malvina Torto	7856
Award Nominations	Una B. Lennon	7882	TAB Committees	Irving Engelson	2150
	Barbara Henry		S/G/C Finance	Mel Bonaviso	7891
Fellow Nominations	Dolores Wright-Riker	7750	Conference Activities	Richard J. Jerril	7596
Personnel (IEEE Staff only)	Eugene Logan	7775	Technical Conferences	Helene Zemel	7761
			Information Processing	James A. Taylor	2142
IEEE Public Relations	Joseph D. Godispoti Staff Director	7866	Power Engineering Society Special Services	Nancy J. Heitmann	7893
	Joan T. Breslin	7867			
			Standards Activities	Ivan G. Easton Staff Director	7966
Publications Activities (for orders and subscriptions see Service Center, Member Services)			Standards Administration	Elizabeth Perry	7670
IEEE SPECTRUM (overall policy only)	Donald Christiansen Editor	7556	Standards Engineering	Joseph R. Fragola	7879
Article submission Meetings and Events	Ronald K. Jurgen	7554	Standards Publishing and Promotion	Bertram Stanleigh	7911
Advertising	William R. Saunders	7767	Field Activities (overall policy only)	Patricia Lech Staff Director	7759
			Orders for Section, Subsection, and Chapter Mailing Lists	Cathy Lyons	7756
THE INSTITUTE/ ELECTRICAL ENGINEERING	Ellis Rubinstein	7562	General Services for Section, Subsections, and Chapters		7827
Art and Production	Janet Mannheimer	7564	Membership Development	Mark Lucas	8080
Publication Policy (other than SPECTRUM)	Elwood K. Gannett Staff Director	7548	Student Activities	Roni Nichols	7826
Transactions Production	James H. Carter	7559	Educational Activities	John F. Wilhelm Staff Director	7871
Conference Publication Production	Isabel Narea	7563	Accreditation		
Newsletter Production	Isabel Narea	7563	Continuing Education		
Indexing	Kaarin Kolbre	7765	Career Development		
Proceedings of the IEEE	Reed Crone	7557	Minorities		
			Validation of Educational Achievement		
			Home-Study Courses	Fern E. Cohen	7860

For general information, not covered above, call Kathy Moore (212) 644-7900



MEMBERSHIP DEVELOPMENT NEWSLETTER

200,000 MEMBERS LIKELY BY YEAR END

IEEE membership in October (illustrated on the following graphs & tables) reached 194,460. This is a 6.0% increase over last year. With a successful Fall membership drive, yearend membership is projected to exceed 200,000 worldwide. Regions 8,9 and 10 continue to outpace Regions 1 - 7 in their growth rate. Region 6, it should be noted, is making a strong effort to become IEEE's most populous region.

Membership in the Societies and Groups is also progressing well ahead of the goals set for 1979. Total S/G membership at 199,792 (growth rate of 8.8%) puts the Societies nearly 20% ahead of their goal. Computer Society at 41,234 leads the list in total members and rate of growth is second only to Professional Communication Society (23.1%).

IEEE MDC and staff appreciate the productive efforts of all who are contributing to the outstanding membership growth in 1979.

IMPROVED GUIDELINE GOAL SETTING SOUGHT BY MDC

1980 Membership growth guideline goals will be set in January, 1980, for the ten Regions and the thirty Societies/Groups. In an effort to continually improve the meaningfulness and realism of the goals, your MDC representative will solicit the assistance from the Regions/Societies in establishing per cent growth estimates for 1980.

MDC and staff will be soliciting the Regional Directors and Society/Group Presidents, as well as their MD Chairmen and MDC Representatives, for growth percentage estimates in January. Where no input is received, 1980 guideline goals will be set by MDC.

First MDC Meeting for 1980 Set for March 1 & 2

The Membership Development Committee has scheduled its first 1980 meeting at Stouffer's National Center, near Washington National Airport, for the weekend of March 1 & 2, 1980. This first MDC meeting of 1980 is essential to successful MD efforts and is open to any observers who wish to attend. Comments and suggestions about IEEE's MD program are welcome. Write to your MDC rep or to Mark Lucas at NY/HQ.

SERVICE CENTER 445 Hoes Lane, Piscataway, NJ 08854 (201) 981-0060		
<u>Member Services</u>	Raymond J. Mendolia Assoc. Staff Director	118
Processing of new member applications	Roseann Schulz	131 or 132
Processing of applications for elevation in member grade		
Complaints		
Dues questions		
Address changes		
Missing publications		
Accessory items - ties, pins, binders, member certificates		
Orders of single copies of publications	Cheryl Feeley	133
Non-member subscriptions		
<u>Continuing Education</u>	Vincent J. Giardina	174
<u>Region and Section Finances</u>	Michael Sosa	123
<u>INSPEC</u>	Cathy Ferrere	122
<u>Marketing</u>	Francis X. Timmons Assoc. Staff Director	127
<u>Data Processing</u>	Jack Fraum Assoc. Staff Director	157

WASHINGTON OFFICE 1111 19 Street, N.W., Washington, D.C. 20036 (202) 785-0017	
<u>Professional Activities</u> (overall policy only)	Leo Fanning Staff Director (Acting)
	Robert Walleigh
<u>Professional Programs</u>	Thomas Suttle
Pensions	
Surveys	
Manpower	
<u>Public Programs</u>	Bill Harrold
	Edith Carper
	Ralph Clark
<u>Communications</u>	Gloria Aukland
Industry Newsletter	Jill Gerstenzang
Impact	

OTHER MEMBER SERVICES	
Portable benefits	IEEE Insurance Administrator (201) 296-8030
Life and health insurance	or (212) 757-9040
Pension coverage annuity benefits	
AVIS/IEEE Car Rental	(800) 331-1212
Reservation	(212) 398-2986
Account Service	

IEEE COMPUTER SOCIETY P.O. Box 639, Silver Spring, MD 20901 (301) 439-7007 5855 Naples Plaza, Suite 301, Long Beach, CA (213) 438-9951		
<u>Computer Magazine</u>	True Seaborn Editor & Publisher	(213) 438-9951
<u>Advertising</u>	Dawn Peck	(213) 438-9951
<u>Technical</u>	Portia Isaacson	(214) 661-6241
<u>Conferences</u>	Harry Hayman Exec. Secty.	(301) 439-7007
<u>Publications</u>	Julie Keith	(213) 438-4958
<u>Membership</u>	Sandy Lesser	(213) 438-9951

INFORMATION CENTER PRICES GOING UP MARCH 1

Now is a good time to purchase Information Centers for your organizational unit. Prices have to be raised on orders received after March 1st. Current prices are shown on the enclosed specifications sheet. After March 1, prices will be:

MICRO CENTER, \$3.00 / MINI CENTER, \$4.00 / MAXI CENTER, \$12.00

Many Sections and Societies are finding the Information Centers excellent for meetings, in-plant use and conferences. To order, use the coupon (or a copy) on the spec sheet.

MEMBER'S TESTIMONIALS STILL SOUGHT FOR PUBLICATION

MD is still seeking testimonials from IEEE members, to let prospective members know what IEEE offers the individual member. Not only in terms of publications, conferences, continuing education and other obvious services and activities, but also in personal and professional experience and rewards. Contributions will be acknowledged prior to publication. As IEEE leaders, EE readers should have plenty to relate.

Please send your testimonial, in a reasonable number of words (50-100), to Mark Lucas, MD/NY.

MEMBERSHIP DEVELOPMENT AT CONFERENCES

Only a few of the more than 125 annual IEEE sponsored conferences take complete advantage of the Membership Development services available. Many materials, including limited publication samples, can be displayed along with membership promotional materials. IEEE encourages sponsors to set up and staff an attended membership table or booth.

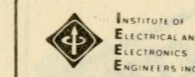
An excellent promotional technique is to apply the differential between member and non-member registration fees towards new member enrollment. This has proven to be a strong inducement for on-the-spot enrollments in IEEE and its Societies.

Further details and assistance with Membership Development promotion at conferences is available from MD/NY. Please allow 2 - 3 months lead time to organize a promotional effort and assure delivery of materials. The guide "MD Guidelines for Operating a Membership Desk During IEEE Conferences" is available from MD/NY for further details and suggestions helpful to your conference.

Family of Membership Brochures Provide Coordination

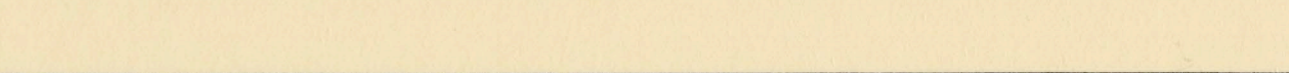
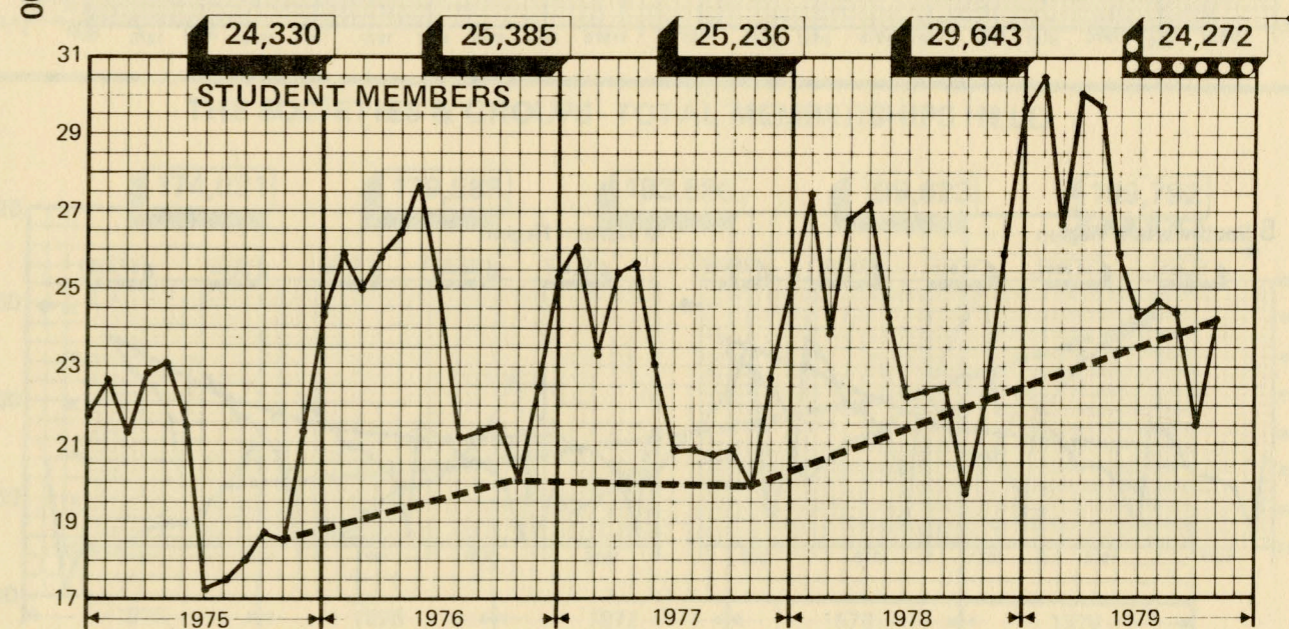
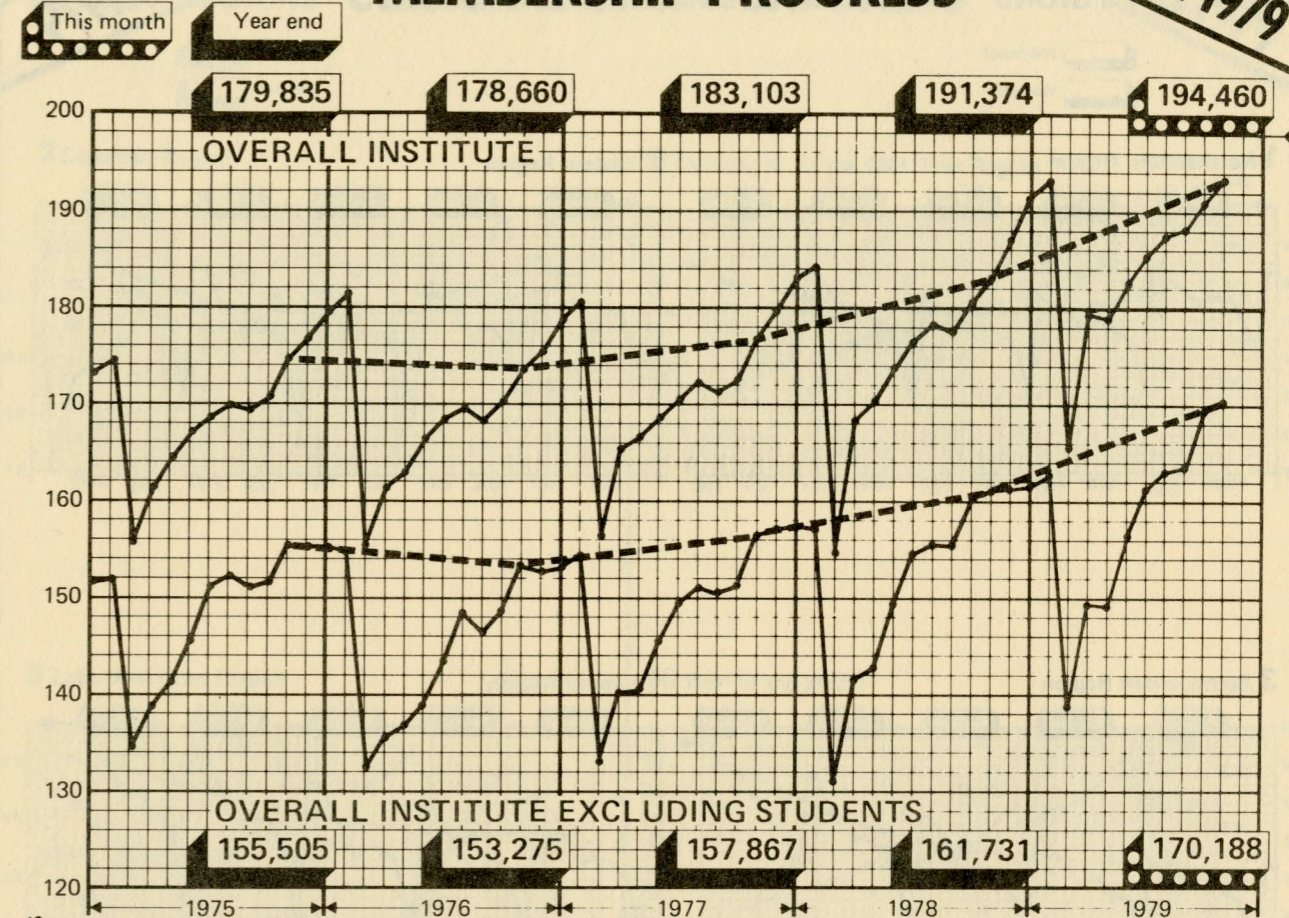
MD is promoting the idea of coordinating the art and graphics of the many membership brochures produced by the Societies and Groups, as well as other IEEE entities. A family of brochures, with similar cover art but unique identification of the sponsoring unit, are viewed as a coordinated approach to presenting IEEE and its technical Societies to prospective members.

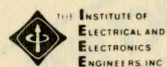
Brochures have now been produced for CHMT, EIS, APS, IECI, EMB, EMS and Region 8 (Europe, Middle East and North Africa). By combining production and print run, cost to the sponsoring unit is kept reasonably low. Interested in joining the family? Contact MD/NY for further details and samples of existing brochures.



MEMBERSHIP PROGRESS

OCT 1979





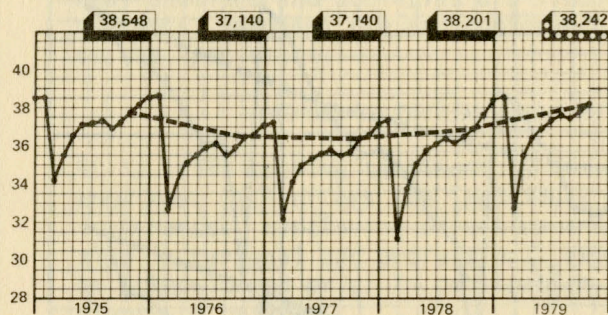
THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

THE REGIONS MEMBERSHIP PROGRESS

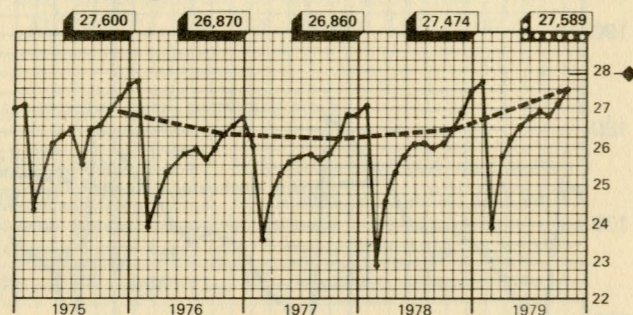
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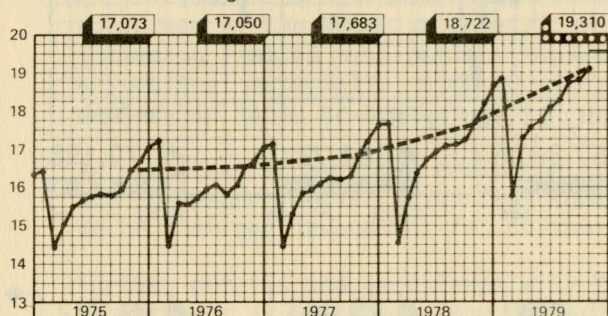
1 Northeastern Region



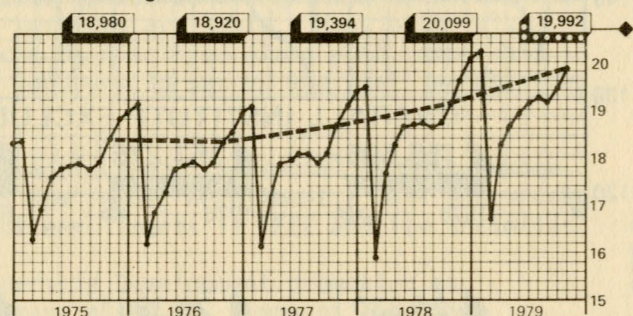
2 Eastern Region



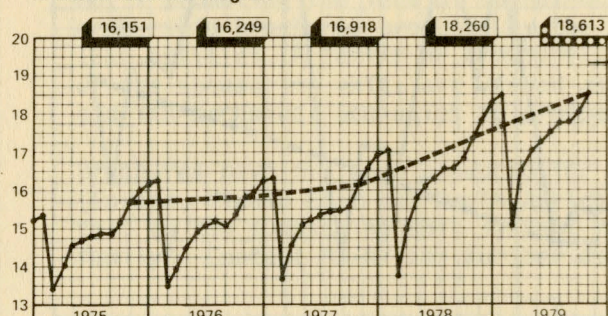
3 Southeastern Region



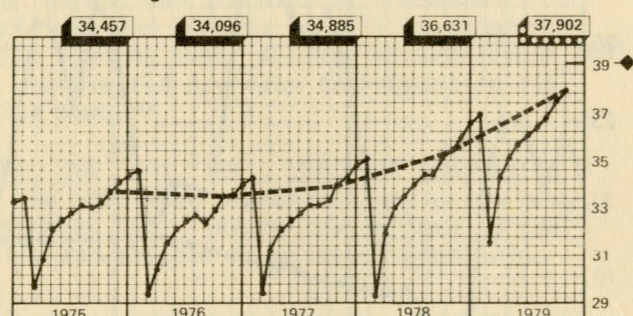
4 Central Region



5 Southwestern Region

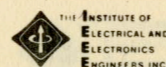


6 Western Region



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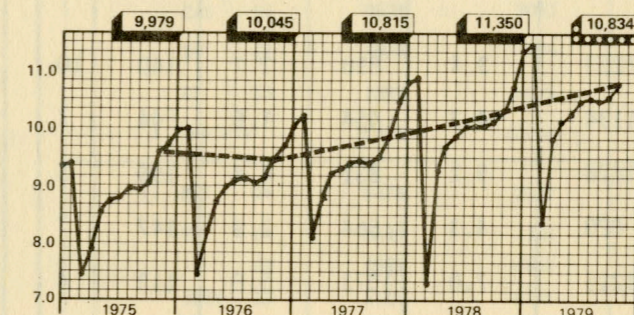
THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

THE REGIONS MEMBERSHIP PROGRESS

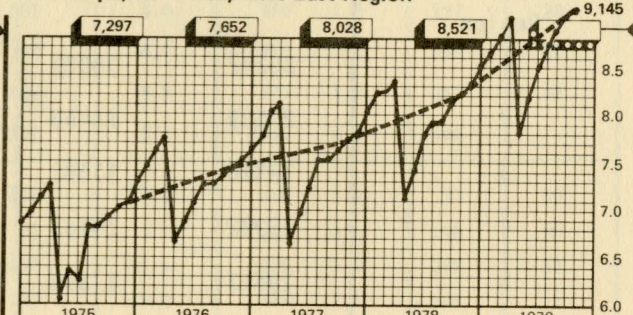
OCT 1979

This month
Year end

7 Canadian Region

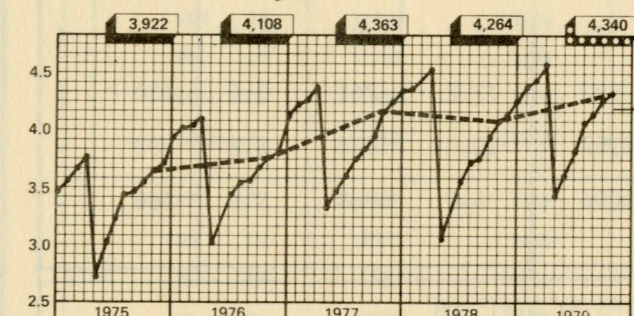


8 Europe, N. Africa, Mid. East Region

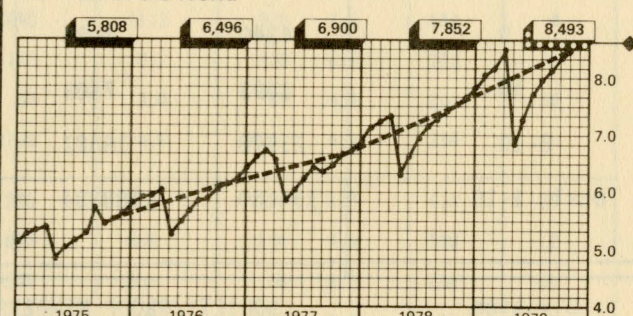


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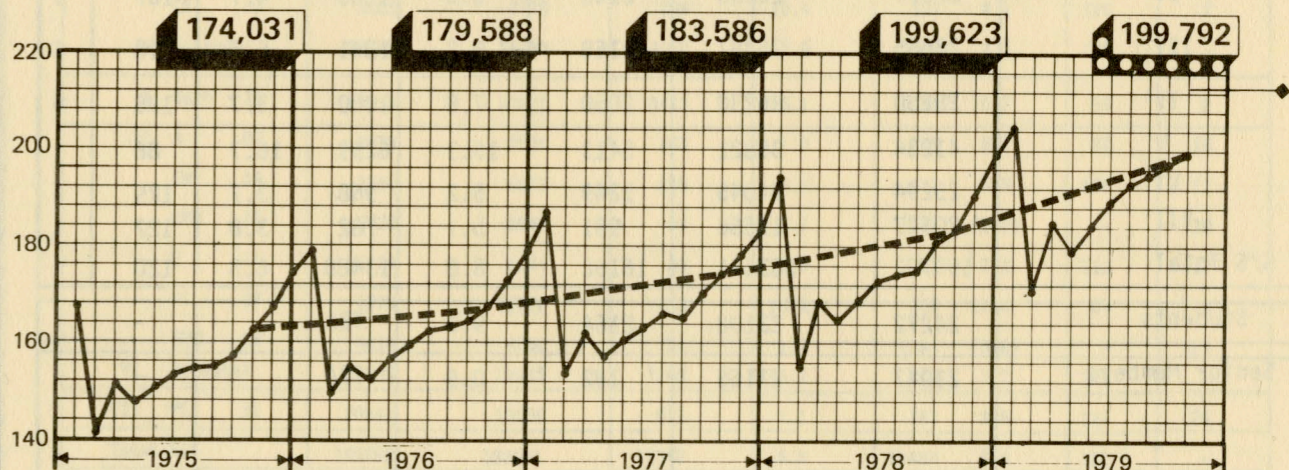
9 Latin American Region

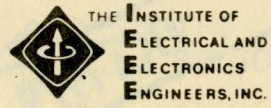


10 Rest of the World



THE SOCIETIES & GROUPS - TOTAL MEMBERSHIPS HELD



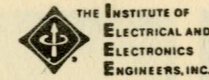


IEEE MEMBERSHIP SUMMARY

October 1979

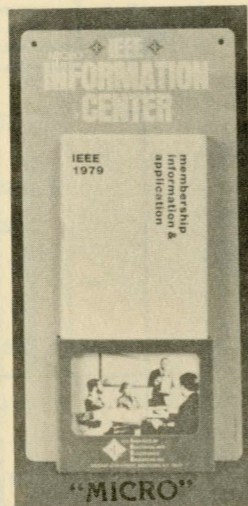
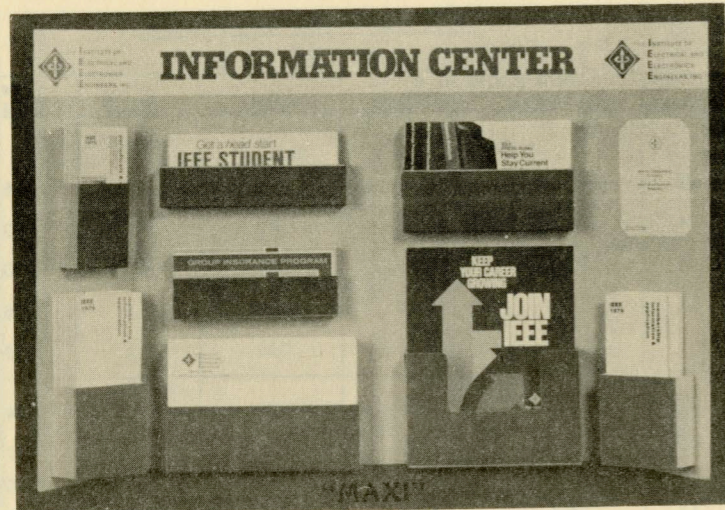
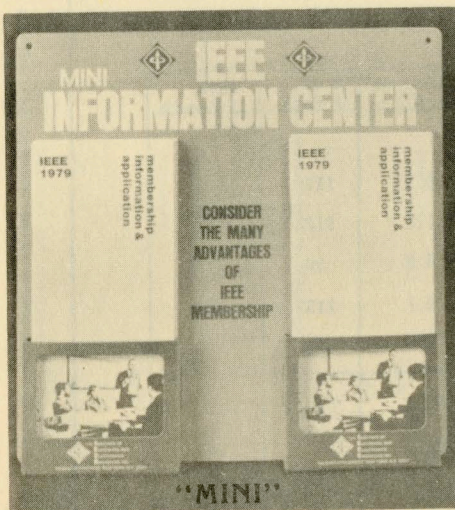
Region	MEMBERSHIPS		Growth	(see rank)	YEAR END GOAL		% of # GOAL	RANK
	10/31/79	10/31/78		% Growth	#	%		
1	38242	36989	1253	3.4	898	2.2	140	10
2	27589	26455	1134	4.3	464	1.6	244	7
3	19310	17682	1628	9.2	831	4.4	196	3
4	19992	19163	829	4.3	564	2.8	147	7
5	18613	17398	1215	7.0	1073	5.8	113	4
6	37902	35484	2418	6.8	1396	3.8	173	5
1-6	161648	153171	8477	5.5	5176	3.2	164	-
7	10834	10401	433	4.2	428	3.7	101	9
8	9145	8232	913	11.1	394	4.6	232	2
9	4340	4086	254	6.2	(79)	(1.8)	-	6
10	8493	7503	990	13.2	761	9.6	130	1
8-10	21978	19821	2157	10.9	1076	5.2	200	-
Total 1-10	194460	183394	11066	6.0	6668	3.5	166	-

Division	SOCIETY/GROUP MEMBERSHIPS BY DIVISION							
I	28409	26258	2151	8.2	1333	4.6	161	4
II	27373	25233	2140	8.5	1285	4.7	167	3
III	28655	26487	2168	8.2	1841	6.3	118	2
IV	28280	26230	2050	7.8	1050	3.7	195	6
V	41234	35821	5413	15.1	6299	16.7	86	1
VI	25294	24045	1249	5.2	968	3.7	129	6
VII	20547	19556	991	5.1	782	3.8	127	5
G/S Total	199792	183631	16162	8.8	13488	6.8	120	-
Students	24272	22108	2164	9.8	TBA		-	
Senior Members	21347	21165	182	0.9	TBA		-	



SOCIETY/GROUP/DIVISION MEMBERSHIPS

Division	MEMBERSHIPS HELD		GROWTH	% GROWTH	Year End Goal		% of # Goal	Rank % Growth
	10/31/79	10/31/78			#	%		
I ASSP 01	6940	6172	768	12.4	655	9.5	117	3
CAS 04	9634	9053	581	6.4	183	1.8	317	20
IT 12	4615	4398	217	4.9	220	4.6	99	25
CS 23	7220	6635	585	8.8	275	3.7	213	12
I Subtotal	28409	26258	2151	8.2	1333	4.6	161	
II NPS 05	2876	2687	189	7.0	194	6.5	97	16
VT 06	2489	2400	89	3.7	257	10.0	35	28
IM 09	4953	4651	302	6.5	100	3.9	302	19
IECI 13	5314	4787	527	11.0	129	2.4	406	5
EI 32	1473	1366	107	7.8	26	1.8	412	14
IA 34	10268	9342	926	9.9	579	5.8	160	8
II Subtotal	27373	25233	2140	8.5	1285	4.7	167	-
III BCCE 02	6460	6022	438	7.3	457	6.8	96	15
AES 10	6646	6393	253	4.0	255	3.7	99	26
COM 19	12419	11179	1240	11.1	923	7.5	134	4
EMC 27	1763	1615	148	9.2	118	6.8	125	9
GEO 29	1367	1278	89	7.0	88	6.3	101	16
III Subtotal	28655	26487	2168	8.2	1841	6.3	118	-
IV AP 03	4401	4160	241	5.8	58	1.3	416	22
ED 15	8090	7435	655	8.8	344	4.3	190	12
MTT 17	5603	5296	307	5.8	106	1.9	290	22
SU 20	2077	1902	175	9.2	112	5.4	156	9
CHMT 21	2757	2601	156	6.0	145	5.1	108	21
MAG 33	2293	2066	227	11.0	158	7.0	144	5
QE 36	3059	2770	289	10.4	127	4.1	228	7
IV Subtotal	28280	26230	2050	7.8	1050	3.7	195	-
V COMP 16	41234	35821	5413	15.1	6299	16.7	86	2
VI R 07	2779	2596	183	7.0	189	6.7	97	16
EM 14	7284	6679	605	9.1	481	6.5	126	11
EMB 18	6922	6848	94	1.1	(73)	(1.0)	-	30
E 25	2124	2044	80	3.9	71	3.2	113	27
PC 26	1775	1522	253	16.6	395	22.6	64	1
SMC 28	4410	4356	54	1.2	(39)	(0.8)	-	29
VI Subtotal	25294	24045	1249	5.2	968	3.7	129	-
VII PE 31	20547	19556	991	5.1	782	3.8	127	24
Total G/S	199792	183631	16162	8.8	13488	6.8	120	-



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NOTES: Membership Development material available upon request at no charge from IEEE Membership Development, New York. Information Center prices include shipping, postage and handling.

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Orders to be charged to IEEE unit:

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CITY: _____ MICRO's @ \$1.50 = _____

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TELEPHONE: () _____ Check/MO enclosed Please charge unit

SIGNATURE: _____ MEMBER NO. _____ DATE _____

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Student Activities News

IEEE STUDENT MEMBERSHIP INFORMATION

The following information has been compiled to inform student members of the IEEE benefits and services.

TECHNICAL AND EDUCATIONAL ADVANTAGES

The IEEE is organized technically into 30 societies and groups and two technical Councils through which most of its specialized technical activities are conducted. You derive additional personal reward from IEEE membership selective enrollment in one or more of the IEEE societies and groups that include your personal fields of interest. Active participation offers the advantage of a smaller society in a specialized field within the framework of IEEE. The entire electrical and electronics spectrum is covered by IEEE societies and groups. IEEE societies and groups provide many opportunities for contacts with others specializing in the same technical areas.

LOW-COST GROUP INSURANCE

A group insurance program (exclusively for IEEE members and their eligible dependents) provides comprehensive insurance coverage for those eligible. Insurance is generally acknowledged to be important to family financial security. There are six separate plans: life insurance, disability income, high-limit accidental death and dismemberment, major medical expense insurance, in-hospital and excess major medical. Each plan has multiple options to suit member preference and needs. The cost to members is generally considerably less than the same protection purchased individually. IEEE is not directly involved in the management of the Group Insurance Program. It has approved this program solely as a service to its members. For further information write: The Administrator, Group Insurance Program for IEEE members, 1707 L Street, N.W., Suite 700, Washington, D.C. 20036.

PROFESSIONAL EMPLOYMENT PRACTICES

Ethics and Industry relations. IEEE strives to improve employee/ employer relations through promulgation of guidelines for the professional employment of engineers. The adoption of an IEEE code of ethics in 1974 was a significant step forward in the area of professionalism. IEEE has undertaken a program on industry relations and interface with major employers of IEEE members in an effort to work cooperatively and effectively in areas of mutual interest that will benefit members, employers and the professional as a whole.

BRANCH PARTICIPATION

Branches: Over 400 IEEE Student branches are established in educational institutions throughout the world. Most of the 25000 IEEE student members participate in Branch activities offering many and varied opportunities for professional development. Students may join IEEE at the reduced rate of \$10.00 a year.

SOCIETY/GROUP SCHOLARSHIP ANNOUNCEMENTS

The Computer Society is offering a \$2000 scholarship. Any student member who is a junior, senior or graduate student with a minimum overall grade point of 2.5, and is an active member of a student branch chapter is eligible to apply. Contact Charles Slivinsky, University of Missouri, Dept. of Electrical Engineering, Columbia, Mo.

The Professional Communications Society is offering a \$1000 scholarship. To meet eligibility requirements, you must be at least a sophomore and a member of the Professional Communications Society. For further details contact Della Whittaker, c/o IEEE Student Services.

It's not too late to join and form a branch chapter of the Computer Society, or to become a member of the Professional Communications Society in order to qualify to receive one of these awards. Write to IEEE Student Services.

MORE STUDENT PAPER CONTEST RESULTS

Region 10 Student Paper Contest winners are: first place, postgraduate - David Challis of the Deakin University; second place, postgraduate - D.R. Manfield of the University of Queensland; first place, undergraduate - Lam Pak Wing of the University of Hong Kong; second place, undergraduate - jointly to Chan Siu Hung, Liang Tin Sing, and Wong Chun Shing, Jenson, all of Hong Kong Polytechnic, and to Dhruvil J. Ghandi of the Indian Institute of Technology.

MURPHY'S LAWS OF RESEARCH AND ENGINEERING

First Law: In any field of endeavor, anything that can go wrong will go wrong. Rule 1: Everything goes wrong at one time. Rule 2: If there is a possibility of several things going wrong, the one that will go wrong is the one that will do the most damage. Rule 3: Left to themselves, things will always go from bad to worse. Rule 4: Plans must be reproducible; they should fail in the same way. Rule 5: Nature always sides with the hidden flaw. Rule 6: If everything seems to be going well, you have overlooked something.

Second Law: It is usually impractical to worry beforehand about interference during system implementation; if you have none, someone will supply it for you. Rule 1: Information necessitating a change in plans will be conveyed to you after, and only after, the plans are complete. Rule 2: In listing alternatives, presenting one obvious right way vs one obvious wrong way, it is often wiser to choose the wrong way to expedite subsequent revisions. Rule 4: The more innocuous a modification appears to be, the further its influence will extend and the more plans will have to be re-drawn.

Third Law: In any collection of performance and data, the figures that are obviously correct and beyond all need of checking contain the errors. Rule 1: Those you ask for help will not see the error. Rule 2: Any nagging intruder who stops by with unsought advice will spot it immediately.

Fourth Law: In any problem situation you find yourself doing an immense amount of work, the answer can be obtained by simple inspection. Rule 1: Prepare no plans or proposals simply if a way can be found to make them complex and wonderful. Rule 2: A detailed compilation of data is useful; it indicates that you have been busy. Rule 3: Before studying a subject, first understand it thoroughly. Rule 4: Do not believe in luck; rely on it. Rule 5: Always leave room, when writing a report, to add another explanation if the first one does not work (rule of the way out).

NEW AWARDS ANNOUNCED BY USAB

The United States Activities Board (USAB) has announced the recipients of its new awards for 1979. They are:

- The Award for Engineering Professionalism, to Bruno O. Weinschel, vice president, professional activities, for his outstanding contributions toward the advancement of the professional goals of the Institute over the years through his dedicated service and exemplary leadership.
- The Distinguished Public Service Award, to the Honorable Mike McCormack (D-Wash.) for his singularly distinguished achievements in advocating before the Congress of the United States the IEEE goals of professionalism in engineering.
- The Citation of Honor, to IEEE members Robert D. Briskman, George Abraham, Robert F. Cotellessa, and Joel B. Snyder for exemplary effort and dedicated service toward attaining recognition of engineering professionalism in the United States.
- The Regional Professional Activities Recognition, to Arthur L. Rossoff, Region 1; James F. Struther, Region 2; John I. Barron, Region 3; Marlin P. Ristenbatt, Region 4; David L. Johnson, Region 5; and Kenneth L. McGowan, Region 6, for exercise of outstanding leadership and dedicated effort in activities that fostered the advance of the professional aims of the IEEE during 1979.

For a description of the USAB awards and 1980 nomination form, see pp. 2C-2D.

TAB NEWS

CALL FOR 1980 DELEGATES

IEEE members who wish to be considered as potential delegates to the Popov Society in the Soviet Union and the Chinese Institute of Electronics should send letters indicating their interest in these exchange visits, accompanied by resumes, to their respective Society/Group/Council president, with a copy to Stanley Winkler, chairman, Transnational Relations Committee, c/o Audrey R. Bickel, TRC Administrator, at headquarters.

The Transnational Relations Committee bases its selections on the recommendations from the presidents. Funding is the responsibility of the individual delegate. In the past, spouses have been invited to join the delegation.

The deadline for submission of applications for the Soviet Union trip is Feb. 1, 1980; the deadline for the Chinese trip is March 1, 1980. Further details on these exchanges will be provided to Society/Group/Council presidents when available and announced in appropriate IEEE publications.

IEEE TECHNICAL ACTIVITIES GUIDE INTRODUCED

The Technical Activities Board has introduced a new administration publication entitled "IEEE Technical Activities Guide" which features a five-year cross-indexed schedule of over 100 important IEEE conferences, listing dates, locations, sponsors, information contacts, and publication plans.

The guide will incorporate the former IEEE Master conference Schedule and contains information on future IEEE periodicals, special issues, and IEEE Press Book proposals and approvals.

The Technical Activities Guide will also include descriptions of newly-published special issues, conference records, and other IEEE publications.

A quarterly publication, the first issue of the guide will be available in January, and will be distributed on a complimentary basis to current recipients of Electrical Engineering, who are generally IEEE volunteer leaders. A subscription to the Technical Activities Guide will cost \$3 for other IEEE members and \$20 for non-members. For more information, contact the Piscataway Service Center.

EAB NEWS

EDUCATIONAL PROGRAMS

The IEEE's Educational Activities Board can provide a wide variety of top-level, proven educational short courses. The EAB is grateful to the many leaders who have scheduled its programs during 1978-1979.

If you are planning to co-sponsor a spring or fall 1980 educational program—don't delay. An early contact with the EAB staff and the establishment of an enthusiastic, supportive local team will kick off a successful program. See the EAB insert EE 2Q.

VALIDATION PROGRAM ESTABLISHED

The IEEE is pleased to announce the establishment of an experimental Validation of Educational Achievement Program. The objective of the program is to motivate practicing electrical/electronics engineers to pursue quality continuing education. Quality is ensured through course evaluations by peers and participants. Motivation is provided by IEEE's recognition of the participant's learning accomplishments with the awarding of Continuing Education Achievement Units (CEAUs). In addition, the participant's achievements in IEEE-evaluated courses will be maintained in a computer-based registry. Transcripts will be available to program participants. During 1980, program participation will be limited to IEEE members in Regions 4 and 6.

This new service is available to IEEE members at no charge and has been funded for two years by the National Science Foundation (NSF).

SPRING EDUCATION PROGRAMS SCHEDULED

The following courses are being offered by the Educational Activities Board for the first quarter of 1980:

- Basic Project Management, Jan. 10-11, Bloomington, Ind.
- Three-Day Microprocessor Workshop, Jan. 14-16, Seattle.
- Introduction to Solid State Power, Jan. 15-16, Corvallis, Ore.
- CAMAC, Jan. 17-18, Santa Clara, Calif.
- Managing Your Career Assets, Feb. 2-3, Amarillo, Texas.
- Microprocessor Seminar, Feb. 8-9, Colorado Springs, Colo.
- Mini/Micro Computer Applications, Feb. 22, Stewartsville, Minn.
- Assembly Language Programming, March 6-7, Westboro, Mass.
- Microprocessor Seminar, March 11, Madison, Wis.
- Microprocessor Seminar, March 17, Philadelphia
- Fundamental Mechanics for Electrical Application Engineers, April 18, Pittsburgh

For more information contact Vince Giardina at IEEE's Piscataway Service Center.

CEAU POLICY

As a result of the policy adopted by the IEEE Board of Directors establishing the EAB as the sole body within the Institute which may grant Continuing Education Achievement Units (CEAUs), the EAB has been receiving many requests from other entities of IEEE for evaluation of courses which they have developed and plan to promote. The EAB has adopted a small fee policy for the first consideration of courses of other IEEE entities. The fee includes the awarding of CEAUs and Certificates for the participants at the initial presentation of the course.

Details of any of the above EAB programs may be obtained by contacting John F. Wilhelm, staff director, educational services, at headquarters.

SOCIETY COOPERATION

As further evidence of close cooperation between the EAB and IEEE's technical societies, the Professional Communication Society and the EAB have mutually agreed to offer free membership for the current year in the PCS to any non-member of the society who enrolls in the "TECHNICALLY—Write!" home-study course.

PUB NEWS

DIGITAL SIGNAL PROCESSING PROGRAMS

For the first time, IEEE Press has published computer programs in both book and tape form available separately.

The book, "Programs for Digital Signal Processing," containing 29 FORTRAN programs in a directly usable form, was edited by the Digital Signal Processing Committee of the IEEE Acoustics, Speech, and Signal Processing Society. Complete user documentation is included for each program, as are test examples that exercise full use of the program. This 592-page volume is priced at \$17.95 for the paperbound member edition and at \$35.95, discounted to \$26.95 for IEEE members, for the clothbound edition.

The companion "Tape of Programs for Digital Signal Processing" contains, in machine readable form, the 29 computer programs documented in the book and four routines listed in the Standards section of the book. The tape, which is standard 1/2-inch width on a 600 foot-reel, is available in either 800 or 1600 bits per inch in EBCDIC. It is priced at \$50.

Both items can be ordered postpaid from the IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854. Payment should accompany each order, and New Jersey residents should add 5 percent sales tax.

VOLUNTARY PAGE CHARGES CHANGED

Voluntary page charges for author-typed *Transactions* papers have been approved at \$35 per page for those societies wishing to institute them. The present standard \$70 rate for regular papers stays the same.

SPECTRUM STAFF COMMENDED

The Publications Board voted to commend the Editor and Staff of IEEE *Spectrum* and *THE INSTITUTE* for its successful year, citing, in particular, the special issues on Communications (October) and Three Mile Island (November), as well as the outstanding performance of *Spectrum's* advertising department.

The Editor noted that a limited supply of the Three Mile

Island special issue is available from the *Spectrum* office, 212-644-7555.

REVIEW OF TODAY'S TECHNOLOGY

Spectrum's January issue will be devoted to a review of today's technology, with emphasis on existing hardware and software, and a look ahead to probable trends during 1980. The issue will highlight developments that are at the cutting edge of technology, but that are nevertheless real, not theoretical. It will deal in a major way with the technologies that were best exploited in 1979 to improve devices/equipment/software or to generate new devices/equipment/software. Further, it will look ahead to how such technologies will be applied during 1980 to modify electrical/electronic products and systems.

CHAPTER/SECTION NEWS

The Antennas & Propagation/Microwave Theory & Techniques Chapter of the Canaveral Section was established.

The Control Systems Chapter of the United Kingdom and the Republic of Ireland was established.

CONSOLIDATED INVESTMENT OPTIONS

The recent performance of the cash management investment options available to IEEE's organizational units is reported below. All units are urged to examine their available cash for optimum returns.

Investment Option 1—Short-Term Bank Deposits* :

Aug.	9.93%
Sept.	10.13%
Oct.	11.31%
Nov./Jan.	11.00% (estimated)

Investment Option 2—Long-Term Bank Deposits (over 6 months)†:

Aug.	10.43%
Sept.	11.05%
Oct.	13.07%
Nov./Jan.	13.00% (estimated)

Investment Option 3—Bond Plan†:

Aug.	9.25%
Sept.	10.23%
Oct.	10.92%
Nov./Jan.	10.50% (estimated)

* Percentages refer to amounts actually earned by all depositors in that month.

† Percentages are estimated average return over total period of the investment on funds deposited during the respective months.

For additional information, contact Michael J. Sosa or Thomas W. Bartlett.

Quick-Reference Telephone Roster

(for information referenced in this issue)

HEADQUARTERS (212-644. . .): Thomas W. Bartlett 7748, Audrey R. Bickel 2123, Mark M. Lucas 8080, Roni A. Nichols 7826, John F. Wilhelm 7871.

PISCATAWAY SERVICE CENTER (201-981-0060): Vince Giardina 174, Raymond J. Mendolia 118, Michael J. Sosa 123.

WASHINGTON OFFICE (202-785-0017): Gloria Aukland, W. Thomas Suttle.