

NEIL D. PUNDIT

JUL 2 1979

TECHNICAL ACTIVITIES

June 1979 **82**

# ELECTRICAL ENGINEERING®

## THIRD CONFERENCE ON U.S. TECHNOLOGICAL POLICY A SUCCESS

Whether they were attending their first, second, or third Conference on U.S. Technological Policy, participants agreed that the 1979 Conference, held May 1-3 in Arlington, Va., was most successful in terms of what they had learned about technological policy issues and IEEE interaction with Congress and Federal agencies. Under the joint sponsorship of USAB and TAB, the Conference is becoming an increasingly important annual event.

This year's Conference focused on stimulating innovation through U.S. policy. Innovation in industry and government support (or constraint) of innovation were among the key issues. Guest speakers explored such topics as the domestic policy review of industrial innovation recently performed by the Department of Commerce on behalf of the President; regulatory incentives vs. impediments to industrial innovation, including environmental, health, and safety regulations; regulation of industry structure and competition; and patents and information policy, as well as economic, tax, and trade policy; Federal procurement and direct support for R&D; and the Federal government's role in the industrial innovation process. Speakers included Robert H. Noyce of INTEL, Myron Tribus of MIT, Congressman James C. Corman (D-Calif.) and Congressman John H. Roussetot (R-Calif.), as well as industry representatives, Federal agency officials, Congressional staff members, and IEEE leaders.

The keynote address, "Technology in Modern Society," was delivered by IEEE President Jerome J. Suran, who stressed the need for greater public understanding of technology and innovative processes and the ethics of the engineering profession. In opening the Conference, Bruno O. Weinschel, IEEE Vice President for Professional Activities, called for the establishment of a National Engineering Foundation to balance the support of basic research by the National Science Foundation.

During the program IEEE Committee Chairmen and USAB Task Force Leaders presented the issues concerning energy, telecommunications policy, health care technology policy, U.S. innovation in electrotechnology, and man and radiation, as well as the IEEE policies and position papers on the issues, and the need for Congressional interaction. Later, a reception for members of Congress and their aides provided IEEE members with an opportunity to meet with Congressmen and staff in a more informal setting.

Detailed coverage of the Conference will appear in the July issue of THE INSTITUTE, and the Conference proceedings will be published soon by the Washington Office.

### USAB NEWS

#### STAFF DIRECTOR TAKES NEW POST

John M. (Jack) Kinn, a Senior Member of IEEE, has left the post of Staff Director of IEEE's Washington Office to accept the position of Executive Director of the American

Federation of Information Processing Societies (AFIPS). The position of Staff Director is open to applicants, according to General Manager Eric Herz. In the interim, Leo Fanning, Associate Staff Director, has agreed to serve as Acting Staff Director of the Washington Office.

#### NEW COMPOW LEADER APPOINTED

Carolyn J. Morris, product marketing manager of Hewlett-Packard's General Systems Division, has been appointed leader of the Committee on Professional Opportunities for Women (COMPOW). She succeeds Thelma A. Estrin, now IEEE Director of Division VI. Ms. Morris' overall strategy is to develop practical goals for women engineers that will help them function and participate in the profession on the same levels as men. Both men and women IEEE members are invited to volunteer to work for COMPOW. Contact Ms. Morris at Hewlett-Packard, General Systems Div., 19447 Pruneridge Ave., Cupertino, Calif. 95014; phone (408) 725-8111, ext. 3764.

#### ON CAPITOL HILL

The IEEE presence has been felt at recent Congressional hearings on pensions, R&D, the solar power satellite, nuclear energy development, and appropriations for scientific and technical Government budgets. IEEE ex-

*continued, p. 2*

### NEWS SUMMARY

#### MEMBERSHIP

- At the end of April, Institute membership stood at 179 165, which is 8962 ahead of 1978 figures and represents a growth of 5.26 percent over last year.
- Region 9 has made a dramatic turn around in growth, increasing their membership rolls 12.2 percent over last year, according to end of April figures.

#### ELECTION

• John J. Kelleher, a candidate for Director of Division III, has withdrawn from the race due to unexpected personal commitments. Statements by all of this year's candidates will be published in a special election section of Sept. THE INSTITUTE.

• The required signatures have been submitted to allow two propositions to amend the IEEE Constitution to appear on the 1980 ballot. The propositions offer changes in the method of electing the Vice President for Professional Activities and the members of the N & A Committee. For details see July THE INSTITUTE.

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USAB NEWS, continued

part witnesses have included: John J. Guarrera, Samuel J. Raff, Hilton U. Brown, Theodore R. Simpson, and Jerome J. Suran.

**NATIONAL PAC WORKSHOP**

USAB PAC Task Force Leader Mark Grove has announced a National PAC Workshop to be held October 11-13 in Chicago. This workshop will focus on leadership training to give greater emphasis to local activities, such as problems in identifying local needs and developing action plans, especially for the newly appointed PAC Chairmen.

**PUBLIC RELATIONS**

Better communication of USAB activities are integral to the overall program directed toward the IEEE membership and its employers, as well as the general public. Five public relations goals were recently approved by the IEEE Executive Committee: 1) to maintain and enhance an IEEE reputation as a world leader in advancing the state of the art of electrotechnology; 2) to create and enhance an IEEE reputation of high social consciousness and responsibility concerning the impact of its technology on society; 3) to create and enhance an IEEE reputation of fostering excellence in professional conduct of its member practitioners; 4) to create and enhance an IEEE reputation of cooperation and synergism with the industries employing its members; and 5) to create and enhance an IEEE reputation of continually developing the welfare of its members and the electrical engineering community.

**ENERGY COMMITTEE SEMINAR**

On March 26-27 the IEEE Energy Committee sponsored a seminar on the role of breeder reactors in energy resource development. Experts on many aspects of the issue presented papers and invited questions. The purpose of the seminar was to gather comprehensive information to develop position papers for approval of the IEEE Board of Directors. The Energy Committee's deliberations came as Congress again began debate on the level of funding to be granted to the Clinch River liquid-metal, fast-breeder reactor demonstration program.

**CALL FOR NOMINATIONS**

The Nominations and Appointments Committee solicits from individual members and all IEEE organizational units the nomination of candidates to be considered for the following elective offices of the Institute.

- Candidates to be elected by the voting membership:
  - President, 1981
  - Executive Vice President, 1981
- Candidates to be elected by the annual Assembly for the 1980 term:
  - Vice President-Educational Activities
  - Vice President-Professional Activities
  - Vice President-Publication Activities

*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*.

Vice President-Regional Activities  
Vice President-Technical Activities  
Secretary-Treasurer  
Director-Standards Activities

The general qualifications for service to IEEE are the same as those in any other position of leadership responsibility and trust; competence, experience, willingness to take on the task, availability of time to participate, enthusiasm, and vigor. Recommendations may be submitted any time before September 28, 1979, to the Staff Secretary of the Nominations and Appointments Committee at Headquarters.

**RAB NEWS**

**PRESIDENTIAL DEBATE TAPES**

In prior years, it has not been possible for the IEEE presidential candidates to visit more than a small percentage of all Sections to present their views. This year the Board of Directors has authorized that an audio tape of a debate between the 1979 candidates for IEEE President be made available to all Sections.

The live candidate debates have just begun this month, with the June 2 debate in Orlando, followed by debates in New York on June 4, in Cleveland on June 6, and concluding at WESCON in September. The Cleveland debate will be taped, and cassette copies will be made available to Sections by July 15.

Field Services has mailed descriptive material about the tapes to all Section Chairmen. It is hoped that all Sections will find the 1979 election important enough to schedule a "candidates' night" meeting in conjunction with another scheduled meeting to play the tape and expose members to the views of the presidential candidates. For further information contact the Field Services Department at Headquarters.

**MID-YEAR OFFICERS**

As a reminder, Sections changing officers in the May-July period should report the names of the new officers to the Field Services Department on the newly revised Standard Forms L4, L5, and L6, within 20 days of elections. This will ensure that the new officers receive the necessary organizational information promptly.

**ELECTRICAL HISTORY FELLOWSHIP AWARDED**

The second IEEE Fellowship in Electrical History has been awarded to Ronald R. Kline, a student in the Department of the History of Science at the University of Wisconsin. The Fellowship carries a basic stipend of \$6500 plus an amount up to \$2000 for tuition and fees, and is awarded for full-time graduate study and research during the 1979-80 academic year.

Mr. Kline, who received his B.S. degree in electrical engineering from Kansas State University, has studied the history of science and technology at Wisconsin and at the University of Massachusetts. As an IEEE History Fellow, he will undertake research on the influence of the career of Charles P. Steinmetz on the profession of electrical engineering, particularly in the United States. He believes that existing biographies "do not adequately address such historiographic questions as the science-engineering relationship, the professionalization of engineering, and the social responsibility of engineers."



Contact: Mark M. Lucas

# Membership Development Committee

*INSTITUTE MEMBERSHIP GROWTH CLIMBING*

As of April 30, total Institute membership continues strong growth in 1979, at 179,165 active members. This figure is 8,962 above the same time last year, an increase of 5.3 percent. (See attached statistics.)

Assuming 1979 membership growth will remain constant at this rate, Institute membership would pass the 200,000 milestone by year end. Keep it up!

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WHY ARE YOU AN IEEE MEMBER?

WHAT DO YOU GET OUT OF IEEE?

Membership Development will produce a new brochure 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. Testimonials to the IEEE experience, in a sense.

As leading participants in IEEE, readers of "EE" are being asked to consider the challenging questions above and to contribute, for possible publication, in 50 words more or less, either a specific instance or general reasons why you have gained through IEEE membership. Contributions will be acknowledged.

Send your contribution to IEEE Membership Development, New York HQ.

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*MEMBERSHIP DEVELOPMENT COMMITTEE TO MEET IN REGION 7*

The Membership Development Committee (MDC) will hold its next meeting in Toronto, Canada, August 24-26, including meetings of the Planning & Evaluation (steering) Committee and of the full MDC. Chairman Reed Thompson is compiling a comprehensive agenda in advance of the Fall Bonus membership promotion effort.

All MD officers in Sections, Regions, Chapters and Societies are encouraged to communicate with their Representatives on the MDC with reports of successful membership programs or requests for MDC consideration of proposals or ideas. (MDC roster enclosed.)

*(For MD ACTION, contact Mark M. Lucas, NY Headquarters, (212) 644-8080.)*

1979 RAB MEMBERSHIP DEVELOPMENT COMMITTEE

<u>Chairman*</u> K. Reed Thompson 4528 Wyndale Avenue, S.W. Roanoke, Va. 24018 (703) 387-7370 (O) (703) 989-9402 (H) (703) 387-7497 (Telecopier)	<u>Vice Chairman*</u> Calvin O. Stoutz 21 Stoney Clover Lane Pittsford, N.Y. 14534 (716) 722-2557 (O) (716) 381-2177 (H)	<u>Region 1 Representative</u> Calvin O. Stoutz 21 Stoney Clover Lane Pittsford, N.Y. 14534 (716) 722-2557 (O) (716) 381-2177 (H)
<u>Region 2 Representative</u> Bernhard E. Keiser 2046 Carrhill Road Vienna, Va. 22180 (703) 281-9582	<u>Region 3 Representative</u> Ensign Johnson Vanderbilt Univ., EE Dept. Box 1722, Station B Nashville, Tn. 37215 (615) 322-2771 (O) (615) 292-2961 (H)	<u>Region 4 Representative</u> Professor Harry G. Hedges Michigan State University East Lansing, Mi. 48824 (517) 353-6484
<u>Region 5 Representative</u> W. G. Thorman 111 Tyrol Street San Antonio, Tx. 78209 (512) 227-3211, Ext. 384	<u>Region 6 Representative</u> Roy Yee KEM's, Inc. 239 Puuhale Road Honolulu, Ha. 96819 (808) 847-1395 633164 Telex	<u>Region 7 Representative *</u> C. E. Spike Univ. of Waterloo, Dept of EE Waterloo, Ont., Can. (519) 885-1211, Ext. 3716 069 55 259 Telex
<u>Region 8 Representative</u> C.J.M. van der Wulp TNO Research Unit, E. E. Dept. Westeinde Hospital Lijnbaan 32 2512 VA, The Hague, Netherlands	<u>Region 9 Representative</u> Eduardo Bonzi Correa Casilla 9807 Santiago, Chile	<u>Region 10 Representative</u> J. A. Okochi 5-51-12 Denenochofu Ohta-ku Tokyo, Japan
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<u>Division IV Representative</u> Richard Sparks Raytheon Company Hartwell Road Bedford, Ma. 01730 (617) 274-7100, Ext. 4523	<u>Division V Representative</u> Sam Horvitz Box 274 Waterford, Ct. 06385 (203)447-4270	<u>Division VI Representative</u> Thomas H. Grim 3392 Avalon Road Shaker Heights, Oh. 44120 (216) 822-8871 (216) 561-9110
<u>Division VII Representative</u> Howard M. Hess 32355 Susanne Drive Franklin, Mi. 48025 (313) 626-8916	<u>Past MDC Chairman *</u> David C. McLaren Gen. Tel. Co. of Florida P.O. Box 110 Tampa, Fl. 33601 (813) 224-4409 (O) (813) 531-1733 (H) (813) 229-1375 (Telecopier)	<u>Chairman, 1979 RAB SAC</u> Eric M. Aupperle University of Michigan Merit Computer Network 5115 IST Building Ann Arbor, Mi. 48109 (313) 764-9423 (O) (313) 665-8043 (H)
		<u>IEEE Staff Secretary*</u> Mark M. Lucas IEEE Membership Development 345 East 47th Street New York, N.Y. 10017 (212) 644-8080 (O) (212) 751-6898 (H) (212) 752-4929 (Telecopier) 236-411 (Telex)

\*Planning & Evaluation Committee

MML 7/78  
Rev. 10/27/78  
Rev. 1/79  
Rev. 2/79  
Rev. 4/79

REGIONAL - DIVISIONAL - STUDENT - SENIOR MEMBER - SUMMARY

Region	MEMBERSHIPS		Growth	% Growth	1979 GOAL		% of GOAL
	4/30/79	4/30/78			#	/ %	
1	36409	35102	1307	3.7	898	2.2	146
2	26257	25376	881	3.5	464	1.6	190
3	17580	16413	1167	7.1	831	4.4	140
4	18647	18259	388	2.1	564	2.8	69
5	17001	15790	1211	7.7	1073	5.8	113
6	35099	33046	2053	6.2	1396	3.8	147
1-6	150993	143986	7007	4.9	5176	3.2	135
7	10140	9708	432	4.4	428	3.7	101
8	7800	7122	678	9.5	394	4.6	172
9	3424	3051	373	12.2	(79)	(1.8)	472
10	6808	6336	472	7.4	761	9.6	62
8-10	18032	16509	1523	9.2	1076	5.2	142
Total 1-10	179165	170203	8962	5.3	6668	3.5	134
Division	SOCIETY/GROUP MEMBERSHIPS BY DIVISION						
I	25247	23565	1682	7.1	1333	4.6	126
II	24765	22870	1895	8.3	1285	4.7	147
III	26145	24161	1986	8.2	1841	6.3	108
IV	25601	23964	1637	6.8	1050	3.7	156
V	35917	30454	5463	17.9	6299	16.7	87
VI	22930	21665	1265	5.8	968	3.7	131
VII	18977	18064	913	5.1	782	3.8	117
G/S Total	179582	164743	14839	9.0	13488	6.8	110
Students	29723	27217	2506	9.2	TBA	-	-
Senior Members	20843	20559	284	1.4	TBA	-	-

SOCIETY/GROUP/DIVISION MEMBERSHIPS

Division	MEMBERSHIPS HELD		GROWTH	% GROWTH	1979 Goal		% of Goal
	4/30/79	4/30/78			#	%	
I ASSP 01	6202	5552	650	11.7	655	9.5	99
CAS 04	8531	8047	484	6.0	183	1.8	264
IT 12	4139	4016	123	3.1	220	4.6	56
CS 23	6375	5950	425	7.1	275	3.7	155
I Subtotal	25247	23565	1682	7.1	1333	4.6	126
II NPS 05	2588	2443	145	5.9	194	6.5	75
VT 06	2309	2229	80	3.6	257	10.0	31
IM 09	4484	4197	287	6.8	100	3.9	287
IECI 13	4702	4208	494	11.7	129	2.4	383
EI 32	1319	1224	95	7.8	26	1.8	365
IA 34	9363	8569	794	9.3	579	5.8	137
II Subtotal	24765	22870	1895	8.3	1285	4.7	147
III BCCE 02	5913	5540	373	6.7	457	6.8	82
AES 10	6167	5914	253	4.3	255	3.7	99
COM 19	11174	10078	1096	10.9	923	7.5	119
EMC 27	1633	1481	152	10.3	118	6.8	129
GEO 29	1258	1148	110	9.6	88	6.3	125
III Subtotal	26145	24161	1986	8.2	1841	6.3	108
IV AP 03	4027	3800	227	6.0	58	1.3	391
ED 15	7268	6782	486	7.2	344	4.3	141
MTT 17	5103	4892	211	4.3	106	1.9	199
SU 20	1867	1719	148	8.6	112	5.4	132
CHMT 21	2473	2402	71	3.0	145	5.1	49
MAG 33	2114	1865	249	13.4	158	7.0	158
QE 36	2749	2504	245	9.8	127	4.1	193
IV Subtotal	25601	23964	1637	6.8	1050	3.7	156
V COMP 16	35917	30454	5463	17.9	6299	16.7	87
VI R 07	2520	2381	139	5.8	189	6.7	74
EM 14	6682	6080	602	9.9	481	6.5	125
EMB 18	6220	6178	42	0.7	(73)	(1.0)	257
E 25	1960	1866	94	5.0	71	3.2	132
PC 26	1604	1233	371	30.1	395	22.6	94
SMC 28	3944	3927	17	0.4	(39)	(0.8)	244
VI Subtotal	22930	21665	1265	5.8	968	3.7	131
VII PE 31	18977	18064	913	5.1	782	3.8	117
Total G/S	179582	164743	14839	9.0	13488	6.8	110



Contact: Richard Aseltine

# Student Activities News

## THE 20 BIGGEST STUDENT BRANCHES

The two largest IEEE Student Branches both have over 400 members. According to the records on file with IEEE's computer in New Jersey, Georgia Institute of Technology had a record 440 members, with the University of Illinois next with 408. The students in the top eight schools account for nearly 10 percent of IEEE Student membership, which has now passed 30 000.

The rankings for December 31, 1978 are as follows: Georgia Institute of Technology (440), University of Illinois at Urbana (408), Pennsylvania State University (391), University of Texas at Austin (367), Purdue University (358), Texas A & M (355), Massachusetts Institute of Technology (329), University of California at Berkeley (311), Polytechnic Institute of New York (294), University of Missouri at Rolla (293), Stanford University (284), Virginia Polytechnic Institute (255), New Jersey Institute of Technology (231), University of Toronto (231), University of Maryland (223), Rensselaer Polytechnic Institute (221), University of Michigan (219), City College of New York (206), University of Tennessee (201), University of Southern California (200).

As of January 19, 1979 Student Membership in IEEE totaled 30 133, representing a 17 percent growth over the previous year. Seventy-five schools will receive programmable TI 57 calculators for their outstanding membership recruitment effort.

Membership doubled at 35 schools, with Saskatchewan Technical Institute posting an impressive 270 percent increase in membership. To be eligible to receive a calculator in the Add As Many category, a school had to recruit at least as many new Student Members as were shown on its roster as of September 1, 1978.

Winners in the Add As Many category: Region 1--University of Maine, Stevens Institute of Technology, Franklin Institute of Boston, New York Agriculture and Technical College, Vermont Technical Institute, Waterbury State College, SUNY College at Buffalo; Region 2--Ohio University, Northern Ohio University, Temple University, Grove City College; Region 3--Virginia Military Institute, Christian Brothers College, DeVry Institute of Technology-Atlanta, University of Southern Alabama; Region 4--Michigan State University, Milwaukee School of Engineering, North Dakota State University, Rose Hulman Institute, South Dakota State University, University of Illinois at Chicago; Region 5--Del Mar College, Metropolitan State University; Region 6--Montana State University, Northern Arizona University; Region 7--University of New Brunswick, Southern Alberta Institute of Technology, Saskatchewan Technical Institute, Centennial College; Region 8--University of Liege, Ecole Polytechnique Federale; Region 9--University of Puerto Rico, Universidad Catolica de Chile, MacKenzie University; Region 10--Regional Engineering Institute.

Forty schools added 60 or more new members. Pennsylvania State University recruited the largest absolute number of Student Members by adding 226 to its rolls, while the University of Illinois was a close second with 220.

Winners in the 60 or More category include the top 19 schools listed above as well as: Region 1--Cornell University, University of Lowell, Manhattan College; Region 2--Lehigh University, University of Pittsburgh, Youngstown State University, Pennsylvania State University Capitol Campus; Region 4--Iowa State University, Marquette University; Region 5--University of Colorado at Boulder; Region 6--University of Washington, University of California at Davis; Region 7--University of British Columbia, McGill University, Saskatchewan Technical Institute, Carleton University, Mohawk College, Algonquin College, Ecole Polytechnique, Red River College; Region 9--Distritl Fran Jose.

Reprinted from IEEE Spectrum March 1979

GRADUATING STUDENTS TAKE NOTE

For your convenience, the IEEE will automatically upgrade you to Associate Member or Member status (whichever is applicable) and you will continue receiving publications and services through the end of the year at no additional cost. In November, when you are billed for 1980, you will receive the special discounted dues rate for first-year graduates. To continue receiving Spectrum, send an address notification to the IEEE Service Center six to eight weeks in advance. If you are moving in June, report your new address now.

A letter and a Graduate Information Form is sent to every student three months prior to graduation, based on the expected graduation date reported to IEEE on the student application. By returning the response form, you enable IEEE to update your membership record to reflect whether you go to work or continue in school. In providing this information, you are helping IEEE serve you better. If you do not receive the letter by the time you graduate, a copy of the Graduate Information Form may be obtained by sending your name, address, and membership number to: Student Services - B59, IEEE, 345 East 47 St., New York, N.Y. 10017.

WILLIAM E. JACKSON AWARD

A personalized plaque and a \$1000 honorarium will be awarded to an outstanding student selected on the basis of a written report and biographical sketch that must be submitted to the Radio Technical Commission of Aeronautics by June 30. Any undergraduate studying for a degree in the field of aviation electronics or telecommunications systems is eligible.

The award is a memorial to William E. Jackson, an outstanding pioneer in the development and implementation of the present airways, air traffic control, and aviation communications systems. Further information on the award is available from: William E. Jackson Award Committee, c/o RTCA Suite 655, 1717 H St., N.W., Washington, D.C. 20006; 202-296-0484.

STUDENT AND RECENT GRADUATE DUES  
for membership through December 31, 1979, in U.S. dollars

Dues Category	Base Dues	Society Membership	Regional Assessment			Entrance Fee*
			U.S.	Canada	Other	
Students and Student Members graduating in 79 <sup>†</sup>	10	3	0	0	0	0
First year recent graduates (class of 78)	20	5 - 12	4	3	0	0
Second year recent graduates (class of 77)	30	5 - 12	8	5	0	0
Higher grade	35	5 - 12	10	7	0	10

\*Entrance fee waived for former Student Members; † Students joining after March 1 receive 1979 membership at one-half the annual rate.

Reprinted from IEEE Spectrum April 1979

AFTER GRADUATION: IEEE WILL CONTINUE TO WORK FOR YOU

As many of you are now making the transition from the ranks of student to practicing engineer, IEEE membership will continue to provide opportunities and experiences directed toward your professional, technical, and educational development. IEEE is not for everyone; it is for those who qualify (there are several membership grades) and are genuinely interested in and dedicated to improving the understanding of electrical and electronics engineering and its applications to the needs of society.

IEEE FACTS ON ORGANIZATION AND OBJECTIVES

The Institute of Electrical and Electronics Engineers, founded in 1884, is the world's largest professional engineering society. Its objectives are: (a) Scientific and educational, directed toward the advancement of the theory and practice of electrical engineering, electronics, radio, and the allied branches of engineering and the related arts and sciences. Means to reach these goals include the holding of meetings for the reading and discussion of professional papers and the publication and circulation of works of literature, science, and art pertaining thereto; (b) professional, directed toward the advancement of the standing of the members of the profession it serves. Means to this end include, but are not limited to, the conduct and publication of surveys and reports on matters of professional concern to the members of such professions, collaboration with public bodies and with other societies for the benefit of the engineering profession as a whole, and the establishment of standards of qualification and ethical conduct. The IEEE does and shall not engage in collective bargaining on matters of salaries, benefits, and working conditions customarily dealt with by labor unions.

IEEE strives to enhance the quality of life for all people throughout the world through the constructive application of technology in its field of competence. It endeavors to promote understanding of the influence of such technology on the public welfare.

The IEEE serves 190 000 members organized in 242 Sections, 540 Chapters, 10 Regions, and 430 Student Branches. In addition the Institute serves 10 000 nonmember subscribers. The publication services provided by the IEEE include Transactions, Proceedings, Spectrum magazine, IEEE Press, a Directory, newsletters, and conference records.

The Institute is technically organized into 7 Divisions that are further divided into 30 Groups and Societies and two Councils. Heading the technical activities is the Technical Activities Board composed of 24 Standing Committees. The Groups, Societies, and Councils publish Transactions, Journals, Magazines and Newsletters. The technical activities also include the sponsorship and cosponsorship of over 150 conferences annually. In addition, approximately 20 000 pages of conference papers are published.

The United States Activities Board offers services to members which include improvement in financial and economic benefits for members, career conditions and opportunities, professional status, government relations and other interfaces, and communicates to members its activities and accomplishments.

The Educational Activities area offers more than 50 continuing education short courses annually in various Regions and a score of Home Study Courses. Services in the prebaccalaureate area include participation in the Engineers' Council for Professional Development accreditation activities; precollege guidance through the dissemination of information to counselors; and participation in activities or organizations promoting minorities in engineering.

Reprinted from IEEE Spectrum May 1979

## OUTSTANDING COUNSELOR RECOGNITION PROGRAM

Aware of the unusual and dedicated effort of Branch Counselors, the Regional and Technical Activities Boards have funded a program which will recognize these individuals collectively through sponsoring a cash award to each of ten outstanding Counselors selected through the Outstanding Counselor Recognition Program. Winners will be those individuals who exemplify in their work as a Counselor, the Institute's commitment to the educational, professional, technical, and personal development of students in electrical engineering and the related arts and sciences.

To nominate a Counselor, students are encouraged to write an essay (not to exceed 1500 words) on how they feel their Counselor earned the qualifications of "Outstanding Branch Counselor." The primary criteria for selection is the enthusiastic support of the Counselor by the students and his (her) commitment to the engineering profession as demonstrated by fostering Branch activities which contribute meaningfully to the development of IEEE Student members.

July 15, 1979 is the deadline for submission of essays and supporting documentation. To strengthen a nomination, recommended supporting materials include (1) a petition of endorsement by Branch members, (2) letters of recommendation, and (3) a brief biographical sketch of the Counselor. Nominations or requests for additional information should be sent to: IEEE Student Services, Outstanding Counselor Program, 345 East 47th St., New York, N.Y., 10017.

## 1979 IEEE STUDENT PAPER CONTEST WINNERS

IEEE Student Paper Contest winners have been announced for the competitions in Regions 1, 2, 3, 4, and 5. Students who compete on the Regional level first must compete in a Branch, and often Section or Area, contest to make the finals in the IEEE Student Paper Contest. Winners receive cash awards of \$200, \$100, or \$50 for first, second, or third place, respectively. In addition the papers are published in the annual compendium of the top three papers from IEEE's ten Regions.

For the 1979 contest, the winners are: Region 1 - F. Bartlett, first; coauthors B. Myers, L. Rosenstein, and B. Heil, second; coauthors M. Jaffe, D. Samik and J. Leong, third; Region 2 - coauthors R. Kollar and R. Adkins, first; J. Paviol, second; coauthors M. Buchinsky and R. Bitting, third; Region 3 - C. DeCamillis, first; R. Johnson second; M. Montgomery, third; Region 4 - G. Harrington, first; coauthors M. Sinelli and V. Rauth, second; W. Crosbie, third; Region 5 - coauthors J. Surber and K. Kitchen, first; A. Prabhakar, second; B. Reese, third.

## 1978 STUDENT PAPERS CONTEST BOOK AVAILABLE

The annual compendium of winning Student Papers has been published for the 1978 contest and is now available. The book is underwritten by the Aerospace Electronics Systems Society and the Industry Applications Society which enables the IEEE to distribute the publication to Student Branches and their designated library on a complimentary basis upon request.

Members of the IEEE may buy the book at the member rate of \$8; the rate for all other individual and libraries is \$14. The product's order code which should be referenced in all orders or inquiries is TT0113-1. Individuals interested in purchasing the book may do so through the Single Publication Sales Unit of the IEEE Service Center, 445 Hoes Lane, Piscataway, N.J., 08854.

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## ADMINISTRATIVE MANUALS—A KEY TO GOOD SECTION MANAGEMENT

The quality of the organization of a local Section determines to a large extent its effectiveness in serving the membership. Several Sections have come to the attention of the Headquarters Field Services Department for their organizational acumen. A key ingredient in their successes, according to Field Services Director Bob Asdal, is the development and maintenance of a local administrative manual or handbook. Such a manual creates a background of continuity between one set of officers and the next. It is also a useful archival source for information that might otherwise be lost through successive officers. Finally, it avoids the necessity of annually "reinventing the IEEE wheel," and allows for building upon past achievements and avoids repeating past failures.

The Los Angeles Council and the Southeastern Michigan Section manuals provide two examples worth analyzing in detail. The Los Angeles Council is one of the largest geographic units in the IEEE, with approximately 14 000 members, and its own business office. Its size and complexity—incorporating 9 Sections—necessitate both good organization and easy access to organizational information. A couple of years ago, to meet these needs, the then Council Chairman Dan Love compiled a comprehensive organization manual for the Council. The manual has five parts: organization, job description, yearly calendar, roster, and bylaws and policy—all contained in a looseleaf binder to ease additions and revisions. Copies provided to Section officers also contain the latest revisions of Section bylaws.

The manual's first three components contain particularly noteworthy features. The organization component describes what the L.A. Council is, its background, purpose, place in the IEEE structure; and the job description component includes all of the positions on the Council, each description broken into five parts: function, duties and responsibilities, authority, relationships, and qualifications. These descriptions are based on those provided by the Section manual, with modifications tailored to fit the L.A. Council.

The third component, the calendar, combines two functions. It gives the specific schedule of events, such as planned seminars, as well as a monthly listing of the duties of each of the officers and members of the Council's operating committees. The latter serves as a

useful memory jogger, according to Council Chairman Vic Twaddell, to help the officers keep their responsibilities in mind.

Smaller in scale, though equally useful, is the Southeastern Michigan Section manual, "IEEE'79." This is a looseleaf 34-page booklet, with a cover drawing locating the Section on an outline of the State of Michigan. The contents include a Section organization chart; a roster of Section Executive Committee officers, including work affiliations, addresses, and telephone numbers; a listing of division component Societies and Groups; a listing of whom to call for action at IEEE; a copy of *Wavelengths*, the Section newsletter; and the annually revised operations manual.

These last two components are particularly worthy of study. The annual January issue of *Wavelengths* provides a year book for the Section. In it are included a Section organization chart and line-ups of all the officers, directors, Chapter officers, and committees, including telephone numbers and photos of key people. This newsletter serves a dual function, as a yearly updated component of the Section organization manual and as a yearbook for all Section members.

The operations component of "IEEE'79" covers the duties of Section and Society/Chapter officers, the functions of the standing committees, Section programs, student activities, and conference coordination—all packed with vital details on planning and organizing. These day-to-day instructions can be updated each year.

In many respects, both of the manuals described here are based on the "IEEE Section Manual," which the Field Services Department distributes to all incoming Section chairmen. With the help of the Section manual, and with the time provided by the summer months, any Section should be able to develop its own organization manual. A useful formula to follow is to modify applicable information from the Field Services Section manual and combine this with Section bylaws, rosters, organization chart, a local meeting and events calendar, and information which answers local needs. Gather these into a systematic and readable package, and the job is done.

*This is the third in a series of case histories of successful ideas from the geographic units. For further details or to contribute ideas, contact Bob Asdal at Headquarters.*

## 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\* :

Feb.	9.00%	
March	8.88%	
April	9.06%	
May/July	9.00%	(estimated)

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

Feb.	10.08%	
March	9.84%	
April	10.11%	
May/July	10.00%	(estimated)

Investment Option 3—Bond Plan‡

Feb.	9.24%	
March	9.28%	
April	9.80%	
May/July	9.65%	(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. . .) Bob Asdal 7759; Richard Asetline 7827; Thomas Bartlett 7748; Mark Lucas 8080.  
PISCATAWAY SERVICE CENTER (201-981-0060): Michael Sosa.

**IEEE PRESS**

The publication of *The Engineer in Transition to Management* by Irwin Gray has been announced by the IEEE Press. The book, subtitled "A learning tool for the engineer or other professional newly promoted to management," was written under the supervision of a committee of the IEEE Engineering Management Society. It begins with a detailed "roadmap" to guide the reader through the contents and to enable him to find important subjects readily, and it concludes with "The Manager's Basic Bookshelf," an annotated list of material for further reading. The body of the book deals with those topics a new manager will find most important, such as leadership, finances, and dealing with red tape. The 160-page book is priced at \$9.45 for the paperbound member edition, \$18.95 clothbound (\$14.20 for members). It can be ordered postpaid from the IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. Payment should accompany the order.

**SPECTRUM**

Fame continues to accrue for *Spectrum* as a magazine of award winning journalism. *Spectrum's* October 1978 special issue on productivity was chosen as a finalist in the National Magazine Awards, sponsored by the American Society of Magazine Editors. This is the second time in three years that a *Spectrum* special issue has been so honored. Last time the honor went to the 1975 special "What Went Wrong" issue. Also ranking as finalists for this year's awards were *Newsweek*, *Harvard Business Review*, *Life*, *The New Yorker*, *Esquire*, and *Psychology Today*.

*Spectrum* is also receiving accolades in the commercial arena. In April the Business/Professional Advertising Association of New York City named *Spectrum* as the winner in two categories of its annual communication awards contest. The first award was for the magazine's February 1978 cover, which introduced its series of 10 articles on blackouts. The cover, created by *Spectrum* Design Director Herb Taylor, featured an electric light bulb whose filament was replaced by a candle flame spelling out the word "help." The second award was presented to *Spectrum* for its series of media trade-publications advertisements. Appearing in *Spectrum*, *Electronic News*, and in a direct mail campaign to *Spectrum* advertisers, the ad series confronted the traditional attitude that society publications are of less importance to the advertiser than their commercial counterparts. The campaign was created by *Spectrum* Director of Marketing Frank Timmons, under the direction of Editor and Publisher Donald Christiansen and Advertising Director and Associate Publisher William Saunders.

**CHAPTER/SECTION NEWS**

The Computer Chapter of the Southern Alberta Section was established.

The Acoustics, Speech, and Signal Processing Chapter of the Connecticut Section was established.

The Tallahassee Subsection of the Panama Section was established.

The Power Engineering Society/Industrial Applications Society of the Southern Alberta Section was established.

**ESCOE PROGRESS REPORT**

ESCOE (Engineering Society Commission on Energy) is a not-for-profit organization established in 1976 by the engineering founder societies, including the IEEE, to provide a source of professional knowledge and skill to support the Department of Energy (DOE) in its work. ESCOE is staffed by mature professional engineers from industry and academia who serve ESCOE for two-year periods.

In March, ESCOE presented a one-day review of its technical program for an audience of leaders of the engineering community, including representatives from IEEE. ESCOE's work to date has been primarily in areas of mechanical engineering. Some 19 tasks have been completed or are underway. Representatives from DOE indicated that they have found ESCOE's work to be of high quality and great value. An annual report summarizing the tasks undertaken to date is available from the Technical Activities Department at Headquarters.

**CONFERENCE RECORD SALES**

TAB OpCom has endorsed the concept of conference record sales through Headquarters. The proposal is to let Headquarters staff handle the promotional and administrative details of all sales. Details are to be worked out by the TAB Finance Committee.

**IEEE ENDORSES POWER SOCIETY PAPER**

The Executive Committee, in the name of IEEE, has endorsed a Power Engineering Society critique of a proposed study by the Department of Energy on the national power grid.

**STANDARDS NEWS**

On June 5, IEEE's Manager of Standards Publication and Promotion Bertram Stanleigh joins representatives from other standards developing organizations in presenting views on metric standards planning and priorities to ANSI's (American National Standards Institute) seminar on developing the U.S. metric standards strategy, being held in Chicago, Ill. Mr. Stanleigh has been closely involved in the development and publication of IEEE standards on units, measurements, symbols, definitions, and recommended practices on industrial uses of electricity.

On the international front, Ivan Easton, IEEE Consulting Standards Director, represented IEEE at the 44th general meeting of the International Electrotechnical Commission (IEC) in Sydney, Australia, this May. As a Vice President of the U.S. National Committee of the IEC, Mr. Easton joined those representing U.S. standards interests during the series of meetings held to advance the development of international standards.

**COMMITTEE ON CERTIFICATION**

The Ad Hoc Committee on IEEE Certification met May 10-11 and is preparing recommendations to be issued to the appropriate major boards for comment at their August meetings. The Committee, which is chaired by W. J. Spencer, hopes to release its final report prior to the end of the year.