

BOARD NOMINATES ELECTION SLATE, ACTS ON PRESIDENT-ELECT CONCEPT, CODE OF ETHICS REVISIONS, AND OTHER MEASURES AT FEBRUARY MEETING

Among the actions taken at its February 18-19 meeting in Atlanta, IEEE's Board of Directors chose its nominees for President and Executive Vice President for 1980. Interviews with the Board candidates and the announced petition candidates appear in the March, April, and May issues of THE INSTITUTE, and the candidates' statements will appear in the September issue. In the box on this page are listed all candidates who have been nominated for IEEE offices or who have announced their intention to run as petition candidates in hopes of gathering the required number of signatures for inclusion on the ballot.

Also at the February meeting the Board of Directors approved the concept of a President-Elect, after two years of

study and debate on the topic. According to this concept, which the Board agreed to in principle, the Institute's President-Elect would be elected in the annual election held each fall; take office on Jan. 1; become President the following year; and serve as Past-President the subsequent year. The Board intends that the year spent as President-Elect be used as a training and planning period for the following year's Presidency. The Board believes that the candidates would benefit from a full year in which to organize their careers for service as IEEE President. The Board asked the Executive Committee to determine how to implement the concept. Final action is expected at the December Board meeting.

As for the IEEE Code of Ethics, the Board approved an important change in Policy 7.8, agreeing with USAB Chairman Bruno Weinschel that the Code as written does not "address issues of malfeasance, nor does it attempt to establish criteria" pertaining to volunteers "serving to advance the... interests of IEEE." The revised preamble will now read as follows:

"Engineers, scientists, and technologists affect the quality of life for all people in our complex technological
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Candidate listings for 1980 IEEE offices

For IEEE President, 1980

Board of Directors' nominee: Burkhard H. Schneider

Petition candidate: Irwin Feerst*

Petition candidate: Leo Young*

For Executive Vice President, 1980

Board of Directors' nominee: C. Lester Hogan

For Regional Director, 1980-1981:

Regional Committee
nominees:

Region 1

Hans C. Cherney
Joel B. Snyder

Region 3

David C. McLaren
Harry P. Weber

Region 5

Arwin A. Dougal
John D. Peebles
John Zaborszky

Region 7

Jean Jacques Archambault

Region 9

Eduardo Bonzi-Correa
Oscar C. Fernandez

For Regional Vice Chairman, 1980-1981:

Region 3 Committee
nominees:

Joseph M. Biedenbach
K. Reed Thompson

For Divisional Director, 1980-1981:

Technical Division
nominees:

Division I

Jose B. Cruz Jr.
Sydney R. Parker
G. R. Redinbo

Division III

Edward J. Doyle
John J. Kelleher
Louis J. Urban

Division V

Dick B. Simmons
Merlin G. Smith

Division VII

James B. Owens

*The listed petition candidates have not yet submitted the requisite number of signatures to place their names on IEEE's ballot. They have until May 25 to do so. At date of publication, no other IEEE members had announced their intention to run as petition candidates.

NEWS SUMMARY

• IEEE's Board of Directors acted on the following major topics during its February 18-19 meeting in Atlanta, Ga.:

- Election slate for 1980
- President-Elect
- Code of Ethics
- Guidelines for position papers
- Election of USAB Vice President

For details see the story on this page and the April issue of THE INSTITUTE.

• Institute membership remained strong in February, despite the arrears cutoff, with active membership at 165 476, an increase of 6668 (3.5 percent) over the February 1978 total.

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BoD NEWS, continued

society. In the pursuit of their profession, therefore, it is vital that IEEE members conduct their work in an ethical manner so that they merit the confidence of colleagues, employers, clients and the public. This IEEE Code of Ethics represents such a standard of professional conduct for IEEE members in the discharge of their responsibilities to employers, to clients, to the community and to their colleagues in this Institute and other professional societies."

In other actions, the Board addressed the matter of how IEEE's Vice President for Professional Activities should be elected. Although a motion for direct election of the USAB Vice President by member vote was defeated, the issue was turned over to the Long Range Planning Committee (LRPC) for further study. The LRPC will now include the manner of electing the USAB Vice President in its continuing review of how the United States Activities Board should function.

The Board also passed a set of guidelines for position papers. These guidelines appear, along with comments by IEEE Secretary/Treasurer Donald S. Brereton, as an insert on pages 4E-4H of this issue. The guidelines codify procedures that must be followed for a paper to be labeled an IEEE position statement, and they detail how entities within the IEEE can issue their own position statements. Additional copies of the guidelines, called IEEE Policy Statement 14, may be obtained by writing to Corporate Services at Headquarters.

In a series of election-related actions, the Board delegated authority to the Executive Committee to take action on petitions for constitutional amendments that might be received in connection with the 1979 election ballot. The Board voted to revise Bylaws 201.1, 203.1, 301.1, 311.7, and 313.5 to permit direct election of the Region 10 Director (heretofore elected by the Annual Assembly), beginning with the 1981-82 term. Also, the Board adopted a proposition for an experimental plan under which \$10 000 could be used to cover the expenses of candidates for the 1980 IEEE Presidency in their travels to six regional meetings for debates. An audio tape would be made at one meeting for distribution to local Sections.

In his report, President Jerome J. Suran informed the assembled Directors that the IEEE is continuing the program, which has proven successful over the past four years, of scheduling luncheon meetings for the purpose of establishing a good channel of communication with industry leaders. One such meeting was held in January in New York City, and future meetings in 1979 are scheduled in Washington, Dallas, and San Francisco. Also, the President and other officers participated in a press conference in January, the purpose of which was to establish improved communications with the press. A second conference is scheduled for mid-year.

PROGRESS ON UMBRELLA SOCIETY

Plans for the formation of the American Engineering Councils (AEC) are progressing, according to the report offered by Senior Past President Robert M. Saunders to the Board of Directors at their February meeting. Dr. Saunders is one of IEEE's two representatives to the organizing committee of the new society, whose proposed function will be to mount a unified effort to achieve goals for the engineering profession and to take positions on behalf of the profession on technology-related issues of the day.

The AEC organizing committee is of the view that a significant majority of the membership of a constituent society should be "engineers." In taking positions on mat-

ters of public interest, they wish to be able to speak for the engineering profession, and to do so they must be able to establish that there is a substantial number of engineers in the societies comprising the AEC.

The AEC organizing committee has established the following three criteria to define an "engineer": (1) a person holding a baccalaureate or master's degree from a school whose programs were accredited by the Engineers' Council for Professional Development (ECPD) at the time of graduation from the accredited program; (2) a person graduating from an accredited program or who has no degree but is registered in one of the 55 jurisdictions in the U.S.; (3) a person who does not meet either of the qualifications (1) or (2) but is judged to be qualified as an engineer by virtue of his professional activities and educational background. A random survey of 5000 U.S. IEEE members indicated that between 87.4 percent and 92.8 percent of them could be classified as "engineers."

Targeted for implementation on Jan. 1, 1980, the AEC will probably be structured to include four autonomous councils; education, professional affairs, public affairs, and international affairs. These councils are intended to cover the current functions of the intersociety groups that now exist. As a member of the AEC, the IEEE would be assessed about \$100 000 to \$110 000 for the first year, approximately twice the IEEE's annual payment to the ECPD. However, the new organization would take over the functions of the Engineers Joint Council, as well as ECPD. IEEE withdrew from that body some years ago, but had been spending approximately \$50 000 a year for membership prior to withdrawal.

For details and some opinions on the new umbrella council, see March THE INSTITUTE.

TAB NEWS

SOVIETS INVITED TO COMAR MEETING

At their dinner meeting to be held on June 20, 1979, in Seattle, the TAB Committee on Man and Radiation (COMAR) plans to invite a group of Soviet scientists who will be attending the International Union of Radio Science meetings scheduled concurrently in that city. An informal exchange of view points on radiation standards is expected to take place.

CHINESE ATTEND TWO CONFERENCES

A study group of five engineers from the Chinese Electronics Society attended the International Solid-State Circuits Conference in Philadelphia this February and then participated in a four-week tour of technical facilities specializing in solid-state circuits. The visit included stops at RCA, Westinghouse, Carnegie Mellon, Stanford, and Motorola, among others.

Concurrently, the Computer Society hosted five professors from Qinghua University in Peking at COMPCON '79 in San Francisco. Plans have been made to accommodate the Qinghua professors for a four-week stay in the U.S.

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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.

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

The joint meetings strategy of the Milwaukee Section—a blueprint for success

How would you like to bring out 200 people to a local meeting? Several years ago the Milwaukee Section revised its format for meetings, and attendance began to climb. Instead of holding two joint Section/Chapter meetings per year, they began to schedule all of their meetings as joint meetings. Vince Canino, Chairman of the Milwaukee Section's Program Committee, explained to EE how the format works:

The plan is based on the use of a local university—The University of Wisconsin at Milwaukee, located centrally in the downtown area and well-served by the area's major expressway. The university provides a number of rooms with the needed audio-visual equipment for running group meetings, and right across the hall a larger room with cafeteria dinner facilities. In scheduling the Chapter meetings, the groups are divided. Half of the meetings are held from 6 p.m. to 7 p.m., before the dinner break. Dinner and a section meeting are followed by an after-dinner speaker. Following dinner the second round of Chapter meetings is held.

The after-dinner speaker generally addresses broad nontechnical topics, such as the interface between technology and the law, estate planning, recent developments in the areas of chemical engineering, engineering as it applies to the formulation of state legislation, professional registration in the state of Wisconsin, a panel discussion on the future of nuclear power. An effort is made to divide the Chapter meetings so they do not conflict with each other. For example, meetings of the Computer Society Chapter would not meet at the same time as the Engineering in Medicine and Biology Society Chapter. About 70 percent of the members attend both the pre-and post-dinner Chapter meeting sessions.

The Milwaukee Section provides dinner to the speaker, but usually there is no honorarium paid. Usually the meetings are over by 10 or 10:30 p.m. The evening begins at 5 p.m. with a social hour and cocktails. People arrive at different times, depending on driving time and their work schedules. The social hour before the first group meetings

TAB NEWS, continued

As a reminder, the Transnational Relations Committee advises all Societies who wish to visit China to please contact Audrey Bickel, Committee Administrator, for information on how to proceed with arrangements. Also, any Society that plans to host engineers from China or the Soviet Union at a forthcoming conference, should inform Ms. Bickel at Headquarters as soon as possible.

1979 GOALS FOR TAB FINANCE COMMITTEE

The first 1979 meeting of the TAB Finance Committee was scheduled for March 15. Cyril J. Tunis, Chairman, stated that one of the main issues to be considered by this year's Committee will be the financial condition of some smaller Societies. Other issues of importance before the Committee are the distribution to Societies of TAB administration charges and nonmember (full) subscription income; and the development of the 1980 budgets for TAB and the Societies.

USAB GRANT TO POWER ENGINEERING SOCIETY

The Power Engineering Society's (PES) request to USAB for \$41K to administer a government activities program has resulted in a USAB grant of \$24K to PES, including office services. The Society's proposal for which the funds were granted, entitled "Government Activities U.S.," is broadly for the technical support for USAB functions by PES. The project is to be administered by the Public Affairs Department of PES.

helps; people enjoy meeting and talking with engineers in other disciplines and having an opportunity to find out what is happening throughout the industry.

Advance planning is a key to the Milwaukee Section's success. The University allows the meetings to be scheduled a year in advance, so the program committee has time to coordinate the meetings with the activities of the groups, and the groups have time to plan their activities around the meeting dates. There is no requirement that a Chapter participate in the joint meetings. Some Chapters coordinate their meetings with tours of special local facilities.

Some complication arises from the regional composition of the largest Chapter—the Power Engineering Society—which is not managed by the Milwaukee Section, but by the South East Wisconsin Section, and includes a large number of the Milwaukee Section's members. Their plans have to be meshed carefully with the joint meeting schedule.

On nights when a large number of Chapters are not holding meetings, the program committee tries to schedule a very good after-dinner speaker with broad general appeal, in the hope that people will come and listen to another group presentation, and attend the Section meeting. In the Milwaukee Section there are nine active Chapters. Usually four to seven Chapters participate at each joint meeting. And as in the past, all of the Chapters participate in the January meeting and the May annual meeting, which average an attendance of 170 to 200 members. Feasibility, or advisability of this joint format for other Sections would depend upon travel time, according to Vince Canino. In Milwaukee the very longest commute for attendees is 45 to 50 minutes.

This is the second 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.

The objective of the Department is as follows: "Within the framework of USAB's operations, establish a strong communications link with government, the public, and the media; develop programs that will facilitate position statements, expert testimony, and consultation on engineering and technology to contribute to USAB activities in the energy field; stimulate engineers to become involved in government and societal affairs."

The Public Affairs Department is proposing to develop for USAB a model program that can be transplanted as a whole or in part to other Societies. Division VII Director Barkle, in his forward to the proposal, states "that the proposed activities are intended to make available the expertise of the PES to different entities of the U.S. government and to inform our U.S. members of current government activities that could affect their professional conduct."

DECISIONS REPORTED TO BOARD

TAB Vice President C. Lester Hogan reported the following TAB decisions to the Board of Directors at its February meeting: TAB decided against formation of a new committee on ionizing radiation, since it was the consensus that this field is already studied adequately by other societies. TAB OpCom determined that USAB should contact the Divisional Directors directly in the selection of technical experts as witnesses in Congressional budget hearings. TAB will join with USAB in the formation of a Committee on Health Care Technology Policy.

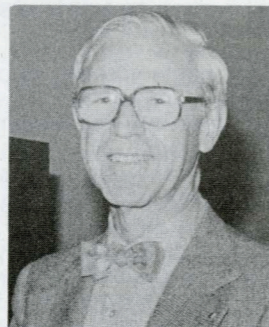
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HONORS FOR TWO DEDICATED STAFFERS

At its February meeting the Board of Directors passed two resolutions honoring Richard M. Emberson and Emily L. Sirjane, both of whom will retire during this year.

The resolution honoring former General Manager and Executive Director Emberson cites his "unusual leadership, service, and dedication" to IEEE, and his extensive "comprehension and knowledge of the fields of electrical arts and sciences." It states that the Board "requires the continuing advice and counsel of Dr. Emberson," and therefore has elected him Director Emeritus of IEEE. This new position will give him a nonvoting seat for life on IEEE's Board of Directors.

The resolution honoring Corporate Services Staff Director Sirjane recognizes her 31 years of "leadership, wisdom, dedication, and support" of IEEE. The Board conferred on her the unique title of Life Fellow Emeritus, and presented her with a book of approximately 200 messages from Sections and Societies around the world. In addition the Philadelphia Section, which makes annual



awards for outstanding service to its members, has made a special award to Miss Sirjane, citing her "wise counsel and guidance to the Philadelphia Section through inspiring support of IEEE Region and Section activities for many years." This award was presented to Miss Sirjane at a staff reception held on March 15 at Headquarters.

TAB NEWS, continued

SOCIETY/GROUP COUNCIL ORIENTATION

A large assembly of TAB members attended the IEEE Orientation for Society/Group/Council Officers in Atlanta on Feb. 15, 1979. The all-day seminar provided participants with an intensive overview of the Institute's internal operations and included welcoming speeches by C. Lester Hogan, 1979 Vice President for Technical Activities, and Eric Herz, IEEE General Manager. Richard M. Emberson, serving as Master of Ceremonies for the event, introduced presentations by 12 key staff members. Areas covered were IEEE finance; corporate services; educational activities; U.S. activities; publications; standards and technical activities. In addition members of the technical activities staff made special presentations outlining their responsibilities at Headquarters. A question-and-answer period concluded the seminar, at which time the TAB officers congratulated the IEEE staff for its dedication and efforts.

COPYRIGHT CENTER UPDATE

Starting in 1978, IEEE adopted the policy of requiring the release of authors' copyright in favor of IEEE as a precondition for publication. Most of the papers are individually coded to facilitate collection of income from systematic photocopying.

A private nonprofit organization, the Copyright Clearance Center, came into existence to enable systematic photocopying and to distribute income to copyright owners. The center is experiencing financial difficulties in becoming operational and has requested assistance. Realizing the potential benefit of the center, the Institute provided financial aid and decided to forego the minimal copyright incomes for 1978 and 1979. When the Copyright Clearance Center does become fully operational, we will have an additional source of income and obtain data on the popularity of our publications.

CONVENTION NEWS

ELECTRO '79 will focus on electronics in the early 1980s and its expected impact on industry and individuals. The convention will be held in New York City, April 24-26 at the New York Coliseum and the Sheraton Centre (formerly Americana Hotel). An attendance of more than 30 000 is expected.

ELECTRO's professional program (examined in *Spectrum's* April issue) will explore subjects such as communications satellites, memory, fiber-optics, energy management, LSI, computer imagery, and microprocessing. The impact of the microprocessor on industry will be apparent with more presentations devoted to the tiny "computer in a chip" than to any other single topic.

This year ELECTRO has included an International Electronics Executives Forum to be moderated by J. Fred Bucy, President of Texas Instruments and a Fellow of the IEEE. Major electronics executives from the U.S., China, Germany, the Netherlands, and Japan will participate in the panel session covering trends in world electronics; the effects of inflation, energy shortages, and import/export restrictions on electronics industries in their countries; and the impact of new technologies. Also, a session of special interest to practicing engineers, sponsored by the IEEE Career Development Committee, will examine the public policy forces influencing the engineering environment and reactions of engineers to those forces.

RAB NEWS

ELECTIONEERING GUIDELINES

An insert, to be found on page 4A of this issue offers electioneering guidelines for Sections and Regions to conform to recently revised IEEE electioneering policies.

MEETINGS AND CONFERENCES

In his information report to the February Board meeting, RAB's Vice President Carroll reported that during 1978 Sections, Subsections, Chapters, and Student Branches held approximately 8000 meetings. In addition to the increased number of geographical organizational units established in Regions 7-10, IEEE's transnational image is further evidenced by the fact that 31 of the 130 major 1978 conferences sponsored by the Societies were held outside the U.S.

IEEE BANNERS

The perfect background for all meetings—whether Region, Council, Section, Subsection, or Chapter—can be provided by IEEE banners. The beautiful blue and gold banners are available in three sizes, with the individual organization's name and imprint. Banners may be purchased or borrowed. For order forms with prices and

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IEEE

Contact: Emily Sirjane

Board of Directors

NEW IEEE ELECTIONEERING POLICY

Upon the recommendation of the Audit Committee, the IEEE Board of Directors approved changes to Policy Statement 12.3 dealing with "Elections and Electioneering." New policy Statement 12.3 is reprinted below for the information and action of all IEEE entities.

All geographic and technical entities of IEEE, according to Section B of the new Policy Statement, are to establish their own electioneering guidelines. This policy applies to 1979 elections. All entities are encouraged to review this policy and adopt appropriate electioneering guidelines that will serve the best interest of their members.

12.3 - Elections and Electioneering

- A. IEEE Policy. Electioneering activities to provide information to the members on candidates and issues are encouraged. It is the policy of IEEE to inform all members of the views of all candidates in the elections of IEEE, including candidates nominated by petition. It is the policy of IEEE to facilitate open discussion, including opposing views, of issues and initiatives to appear on the ballot (Constitutional amendment and referendum); this applies to those proposals originated by the Institute Board of Directors as well as those of other members of IEEE.
- B. Electioneering Guidelines for IEEE Entities. The Executive Committee or other governing body of each IEEE entity is responsible for establishing guidelines to implement the electioneering policy of IEEE in the best interests of the members of that entity. Operating units of each entity are accountable to this governing body to conduct electioneering activities in accordance with the guidelines. The Regional/Divisional Director or other member of the Institute Board of Directors responsible for each entity is ultimately accountable to the Institute Board of Directors to resolve questions concerning conformance of the guidelines with the IEEE electioneering policies.
- C. Means of Informing Members of IEEE Entities. Members may be informed of the candidates' views and of issues pertaining to initiatives through Board/Society/Council/Region/Section or Chapter meetings, conferences and publications. The editor, conference chairman or other individual responsible for the activity has the sole responsibility and authority to determine the information to be presented or published, within the guidelines established by the governing body of that entity.
- D. SPECTRUM and THE INSTITUTE. The Publications Board is responsible to define guidelines to the editors of the IEEE SPECTRUM and THE INSTITUTE to ensure conformance with these IEEE electioneering policies. The Vice President of Publication Activities is accountable to the Institute Board of Directors for implementation and supervision of the policy.



IEEE

Contact: Emily Sirjane

Election Data

Summary of Deadline dates - 1979 IEEE Annual Election

March 1	Regional Committee to submit slates of candidates for the office of Regional Director.
March 1	Divisional Nominating Committees to submit slates of candidates for the office of Divisional Director.
May 1	Board of Directors to announce to the members by this date names of candidates to be elected by the members, as nominated by the Board of Directors, the Regional Committees, and the Divisional Nominating Committees, and the names of any petition candidates whose names have been announced by February 26.
May 25	Petition nominations due for candidates to be elected by the membership.
May 25	Deadline for receipt of petitions for Constitutional amendments.
May 25	Deadline for receipt of initial statements from all candidates for publication in THE INSTITUTE.
May 25	Deadline for receipt of initial statements by principal initiators of Constitutional amendments for publication in THE INSTITUTE.
June 1	THE INSTITUTE to mail copies of candidates' initial statements, as accepted, to opposing candidates by this date.
June 15	Board of Directors statement due on Constitutional amendment proposals.
June 15	Rebuttal statements due from all candidates for publication in THE INSTITUTE.
June 20	THE INSTITUTE to mail Board of Directors statement on proposed Constitutional amendments to principal initiators, and statements by principal initiators to the Executive Director by this date.
June 30	Rebuttal statements due from Board of Directors on Constitutional amendment proposals.
June 30	Rebuttal statements due from principal initiators of Constitutional amendments for publication in THE INSTITUTE.
August	Election material published in August.
September 1	Ballots for Institute election mailed to voting members by this date.
September 28	Deadline for receipt of petition nominations for candidates to be elected by annual Assembly.
November 1	(12 noon) Deadline for ballot returns from voting membership.
November 14	Results of Institute election announced by this date.
December 9	Elections by the annual Assembly announced by this date.



IEEE

Contact: Emily Sirjane

Board of Directors

IEEE Board of Directors Election Chart

- | | | |
|---|---|---|
| 1. IEEE President | } | Elected by all voting members of the Institute |
| 2. IEEE Executive Vice President | | |
| 3. IEEE Junior Past President | | |
| 4. IEEE Senior Past President | | |
| 5. Vice President (Educational Activities) | } | Elected by annual Assembly |
| 6. Vice President (Professional Activities) | | |
| 7. Vice President (Publication Activities) | | |
| 8. Vice President (Regional Activities) | | |
| 9. Vice President (Technical Activities) | | |
| 10. Director - Standards Activities | | |
| 11. Director, Region 10 (all areas outside of Regions 1 - 9) | | |
| 12. Secretary or Secretary-Treasurer | | |
| 13. Executive Director | | |
| 14. Director, Region 1 (Northeastern Region USA) | | |
| 15. Director, Region 2 (Eastern Region USA) | | |
| 16. Director, Region 3 (Southeastern Region USA) | | |
| 17. Director, Region 4 (Central Region USA) | | |
| 18. Director, Region 5 (Southwestern Region USA) | | |
| 19. Director, Region 6 (Western Region USA) | | |
| 20. Director, Region 7 (Canadian Region) | | |
| 21. Director, Region 8 (Europe, Greenland, USSR, North Africa, Near East) | | |
| 22. Director, Region 9 (Latin American Region) | | |
| 23. Director, Division I | } | Elected by voting members in their respective Technical Divisions |
| 24. Director, Division II | | |
| 25. Director, Division III | | |
| 26. Director, Division IV | | |
| 27. Director, Division V | | |
| 28. Director, Division VI | | |
| 29. Director, Division VII | | |

IEEE Issues New Policy on Position Papers

"The Institute recognizes the need..." These are the perspicacious words that begin a brand new section of IEEE's Policies and Procedures Manual - Section 14: IEEE Position Papers and Entity Position Statements.

What is that need? To provide a means by which IEEE's Board of Directors or any entity within the Institute - from a Society or Region to a Section or Committee - can make a public statement on a public issue of technological consequence.

How was such a need determined to exist? On a de facto basis, it has long been clear that groups within IEEE would want to issue such position statements because they have in fact done so. The problem that has surfaced over the years has been twofold: (1) How can IEEE assure its membership that an "IEEE Position" is in harmony with member views? and (2) How can entities within IEEE be discouraged, if not prevented, from either misrepresenting their position statements as IEEE policies or taking positions without being assured of the concurrence of their constituents?

Senior Past President Robert M. Saunders, in a December 1977 column published in THE INSTITUTE, took an important first approach at defining some ground rules that would address the problems just mentioned. In the 15 months since that column, the matter has been debated extensively at every level in IEEE's structure but most particularly by the Technical Activities and U.S. Activities Boards and at Board of Directors meetings. The outcome is the new IEEE Policy reprinted herewith. In presenting it to IEEE's volunteer officers through this publication, on behalf of the Board of Directors, I would like to thank the USAB Committee (under the able chairmanship of Robert F. Cottellessa), the TAB Committee (which it was my opportunity to chair), and the many officers who provided the suggestions and support to those who drafted the basis of the text.

Donald S. Brereton
IEEE Secretary-Treasurer

NEW SECTION 14 - IEEE POSITION PAPERS
AND ENTITY POSITION STATEMENTS

14.1 - Objectives

The Institute recognizes the need for public statements on topics within the scope and purposes of IEEE. Such statements and papers can provide timely information to the public, media and public agencies.

Such statements and papers can be developed and used primarily by an individual IEEE entity, under the title of "Entity Position Statement," or they may be developed with a broader Institute-wide base in mind under the title of "IEEE Position Paper."

Although these guidelines are designed primarily to provide a consistent and formalized basis for the preparation and issuance of IEEE Position Papers, the Institute encourages those IEEE entities developing their own position documents to follow these guidelines. Entity Position Statements may then be carried further to become IEEE Position Papers, as appropriate, without time consuming revision.

14.2 - Definition of Terms

The following definitions of terms are provided:

- A. An IEEE Entity is a formally-constituted body within IEEE. An entity has a formally adopted and approved Charter and/or scope and has a formal place within the hierarchical structure of IEEE. It is understood that the word "entity" as used in these guidelines will be replaced by the actual name of the entity in the actual position document developed.
- B. Entity Position Statement - A document, issued in the name of an entity, developed to express an opinion by an IEEE entity on a specific topic. This document should be subjected to a review procedure by the entity in accordance with Sections 14.3 and 14.4.
- C. IEEE Position Paper - A document, issued in the name of the Institute, developed to express a formal opinion by an IEEE entity on a specific topic. This document shall be subjected to a formal review procedure in accordance with Sections 14.5 through 14.8.

14.3 - Requirements to Issue
an Entity Position Statement

An Entity Position Statement may be prepared and issued by any entity of the IEEE provided that:

- A. The subject of the Entity Position Statement lies within the purposes of the IEEE as set forth in the IEEE Constitution, Bylaws, or Policies and Procedures.
- B. The subject of the Entity Position Statement lies within the approved scope of the entity developing and issuing the Entity Position Statement.

- C. The issuing entity specifies the need for and the intended use of a particular Entity Position Statement.
- D. The identity of the entity issuing the statement is given in the first sentence and the statement is signed and dated by the highest officer of that entity or, in the case of his unavailability, by a responsible officer acting in his name.
- E. The entity shall send a copy of the Entity Position Statement to the IEEE General Manager, upon issuance.
- F. When the Entity Position Statement has been approved and issued, it is recommended that it (or a suitable summary) be published in the issuing entity's newsletter or other publication.

14.4 - Procedure for Approval of
an Entity Position Statement

The completed Entity Position Statement may be issued when either of the two following conditions is met.

- A. The Entity Position Statement has been approved by the highest officer of that entity or, in the case of his unavailability, by a responsible officer acting in his name.
- B. The Entity Position Statement has been approved by a majority of the AdCom, OpCom, or other similar Executive Committee of the entity.

14.5 - Requirements to Issue an IEEE Position Paper

An IEEE Position Paper may be prepared and issued by any entity of the IEEE provided that:

- A. The subject of the IEEE Position Paper lies within the purposes of the IEEE as set forth in the IEEE Constitution, Bylaws, or Policies and Procedures.
- B. The subject of the IEEE Position Paper lies within the approved scope of the entity developing and issuing the IEEE Position Paper.
- C. The issuing entity specifies the need for and the intended use of a particular IEEE Position Paper, and follows the procedures set forth in these guidelines.
- D. The identity of the entity issuing the paper is given in the first sentence and the paper is signed and dated by the highest officer of that entity or, in the case of his unavailability, by a responsible officer acting in his name.
- E. The paper has been approved by the Chairman of the IEEE Major Board of which the entity is a part, and the IEEE Executive Committee.

14.6 - Preliminary Review and Approval of the Outline of an IEEE Position Paper

- A. When an entity of IEEE has decided to develop one or more IEEE Position Papers, the highest officer of that entity is to report that action to the Chairman of the IEEE Major Board containing the entity (and, if applicable, the IEEE Director associated with that entity) and then provide a copy of the outline described in 14.6.B.
- B. A terse outline shall be prepared, insofar as possible, which:
 - (1) Describes the need for the contemplated IEEE Position Paper and any requirement for speed;
 - (2) Describes the intended purpose of the IEEE Position Paper;
 - (3) Indicates the scope of the IEEE Position Paper;
 - (4) Sets forth the principal elements of the position to be taken.
- C. The outline shall be circulated to all members of the IEEE Major Boards for their information.
- D. The outline shall be submitted for approval to the Chairman of the IEEE Major Board of which the entity is a part.

14.7 - Preliminary Release of a Full-Length Draft of a Position Paper

- A. If time is of the essence and approval of the outline has been obtained, a completed full-length draft Position Paper may be transmitted to a limited audience, e.g., a congressional committee, in the name of the issuing IEEE organization. The fact that this is a "draft" should be clearly noted along with the date of this version.
- B. If a full-length draft Position Paper is transmitted outside the IEEE, a copy shall be sent to the IEEE General Manager.

14.8 - Procedure for Final Approval of an IEEE Position Paper

- A. The completed IEEE Position Paper and a one-page Position Digest are to be sent to the Chairman of the applicable IEEE Major Board, who shall send them to all the members of that Board (and, as determined by the Chairman of that IEEE Major Board, to individuals named by the Chairman of any other IEEE Major Board or Committee). Suggested changes shall be incorporated or resolved between the parties concerned, if possible.

- B. The final version of the IEEE Position Paper shall be issued as a paper of the IEEE when any of the following conditions is met:
 - (1) The IEEE Position Paper has been approved by the Chairman of the IEEE Major Board of which the entity is a part, and by the IEEE Executive Committee.
 - (2) The IEEE Position Paper has been approved by the Executive Committee, OpCom or other similar executive function authorized by the IEEE Major Board to grant approval, and by the IEEE Executive Committee.
 - (3) A statistically significant polling of the originating entity's membership constituency indicates at least two-thirds support of the Position Paper, and approval is given by the Executive Committee, OpCom, or other similar executive function of the IEEE Major Board, and by the IEEE Executive Committee.
- C. A copy of every approved IEEE Position Paper shall be sent to the IEEE General Manager at the time of issuance.

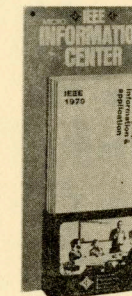
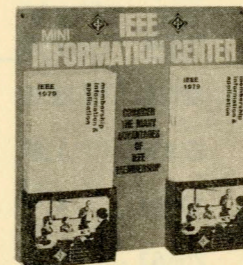
- D. When an IEEE Position Paper is approved and issued, it (or a suitable summary) shall be published in an Institute-wide publication. (Should the issuing entity have a newsletter or other publication, it is recommended that the IEEE Position Paper also be published therein.) A listing of extant IEEE Position Papers shall be published periodically in an Institute-wide publication.
- E. A review for current applicability shall be made by the approving IEEE Major Board at intervals of no longer than five years. Extension or interpretations may result from such reviews, as well as withdrawals.

14.9 - Character of the IEEE Position Paper

- A. To the extent possible, the IEEE Position Paper should state what the issues are, the facts at issue, the conclusions drawn by the developers of the IEEE Position Paper, and the recommendations being made. An IEEE Position Paper need not contain conclusions nor recommendations, but may simply collect all of the key facts at issue for the edification of the members of the profession, the public, the media, or the public agencies.
- B. Every attempt should be made to make an IEEE Position Paper statesmanlike, unemotional, and to give balanced treatment to all sides of the issue. Suggested formats for Outlines, one-page Position Digests, complete IEEE Position Papers, and Summaries are available from the Staff Secretary to each of the IEEE Major Boards, as well as the IEEE General Manager.



Membership Development Committee



2 New Additions Join Family of Information Center Displays

←←← The "MINI" CENTER

The "MICRO" CENTER →→→

Since its introduction, the "MAXI" (8 pocket) INFORMATION CENTER has proven very popular. Over 500 have been distributed to IEEE users, and additional supplies are still available.

To fill needs for other uses, the MINI (12"x12", 2 pockets) and MICRO (6"x12", 1 pocket) have been produced by Membership Development for use by Sections, Chapters, Conferences and others. Each unit is shipped pre-loaded with 5 Membership Information brochures per pocket. Die-cut mounting holes are provided for tacking to bulletin boards and there is an easel for table top use. The IEEE MD address is provided for re-ordering brochures.

Samples of MINI and MICRO are being sent to every Section and Chapter Chairman. Additional supplies may be ordered, with an accompanying check or money order payable to "IEEE", at subsidized prices of \$2.00/MINI and \$1.50/MICRO. The MAXI is still available at \$10.00 each. All reduced prices include postage and handling.

Orders should be addressed to CASH PROCESSING at the IEEE Service Center, 445 Hoes Lane, Piscataway, New Jersey 08854. Inquiries or comments should be sent to IEEE MD, NY.

The INFORMATION CENTER display family provides IEEE units with an attractive and organized method of distributing various literature to current and prospective members. These and other Membership Development tools are being produced for your local use.

1979 MEMBERSHIP GROWTH GOALS SET BY MD COMMITTEE

On the following pages are the 1978 ACTUAL and 1979 GOALS for membership growth for IEEE's Regions, Societies and Divisions. These targets are felt to be achievable goals for year end 1979. With the excellent start provided by many units' reduced arrears in February, these goals are truly made to be exceeded.

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

IEEE TARGET

1979 MEMBERSHIP GROWTH GOALS

REGIONS	12/31/78 ACTUAL	1978 Δ	1979 Δ GOAL	1979 GOAL TOTAL	% Δ GOAL
Region 1	38201	1061	848	39409	2.2
Region 2	27474	581	464	27938	1.6
Region 3	18722	1039	831	19553	4.4
Region 4	20099	705	564	20663	2.8
Region 5	18260	1342	1073	19333	5.8
Region 6	36631	1746	1396	38027	3.8
Region 1 - 6 Subtotal	159387	6474	5176	164923	3.2
Region 7	11350	535	428	11778	3.7
Region 8	8521	493	394	8915	4.6
Region 9	4264	(99)	(79)	4185	(1.8)
Region 10	7852	952	761	8613	9.6
Region 8 - 10 Subtotal	20637	1346	1076	21713	5.2
TOTAL ALL REGIONS	191374	8355	6668	198414	3.5
STUDENTS	29643	4360	TO BE ANNOUNCED		
SENIOR MEMBERS	21256	49	TO BE ANNOUNCED		

Draft
MML 2/7/79
Rev. 3/79

IEEE TARGET

1979 MEMBERSHIP GROWTH GOALS

SOCIETIES/GROUPS DIVISIONS	12/31/78 ACTUAL	1978 Δ	1979 Δ GOAL	1979 GOAL TOTAL	% Δ GOAL
01 ASSP	6909	542	655	7564	9.5
04 CAS	10076	152	183	10259	1.8
12 IT	4807	182	220	5027	4.6
23 CS	7337	228	275	7612	3.7
DIVISION I Subtotal	29129	1107	1333	30462	4.6
05 NPS	2983	161	194	3177	6.5
06 VT	2572	100	257	2829	10.0
09 IM	5081	83	100	5181	3.9
13 IECE	5306	107	129	5435	2.4
32 EI	1437	22	26	1463	1.8
34 IA	10021	553	579	10600	5.8
DIVISION II Subtotal	27400	1026	1285	28685	4.7
02 BCCE	6699	378	457	7156	6.8
10 AES	6920	211	255	7175	3.7
19 COM	12341	763	923	13264	7.5
27 EMC	1731	98	118	1849	6.8
29 GEO	1405	73	88	1493	6.3
DIVISION III Subtotal	29096	1523	1841	30937	6.3
03 AP	4454	48	58	4512	1.3
15 ED	8004	285	344	8348	4.3
17 MTT	5696	88	106	5082	1.9
20 SU	2084	73	112	2196	5.4
21 CHMT	2855	120	145	3000	5.1
33 MAG	2242	131	158	2400	7.0
36 QE	3085	105	127	3212	4.1
DIVISION IV Subtotal	28420	870	1050	29470	3.7
16 COMP DIV V Subtotal	38701	7221	6299	45000	16.3
07 R	2819	157	189	3008	6.7
14 EM	7435	398	481	7916	6.5
18 EMB	7380	(92)	(73)	7307	(1.0)
25 E	2193	59	71	2264	3.2
26 PC	1748	327	395	2143	22.6
28 SMC	4820	(48)	(39)	4781	(0.8)
DIVISION VI Subtotal	26395	800	968	27363	3.7
31 PE DIV VII Subtotal	20571	753	782	21353	3.8
TOTAL S/G	199712	13300	13488	213270	6.8

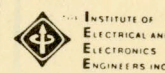
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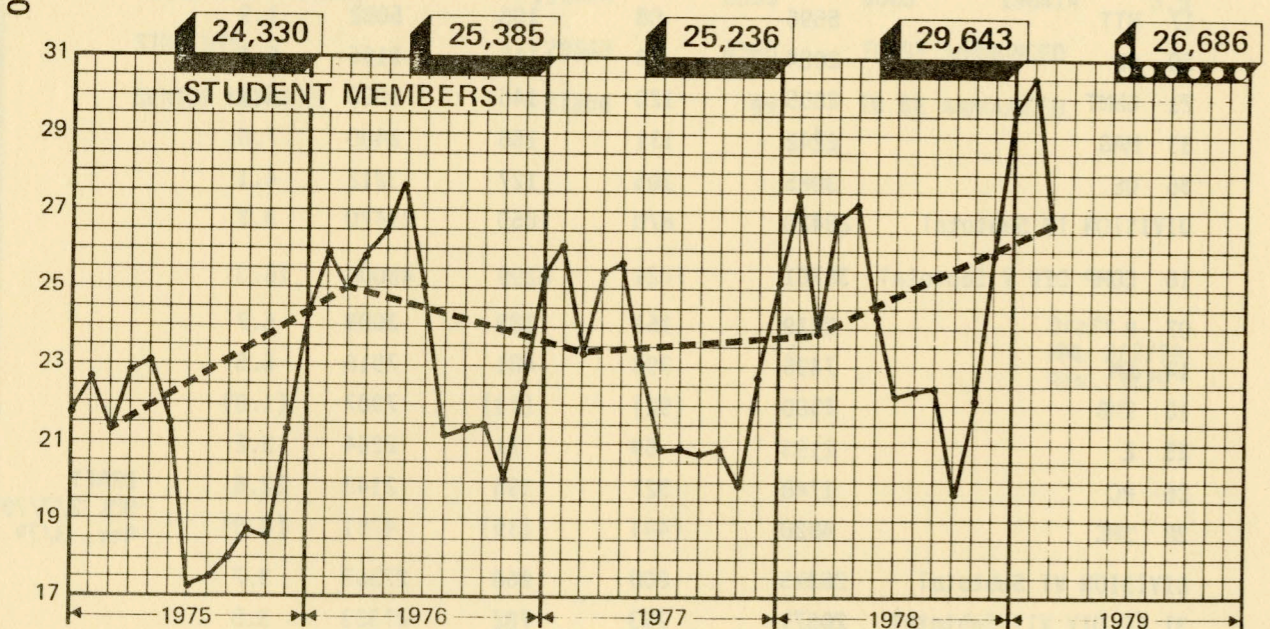
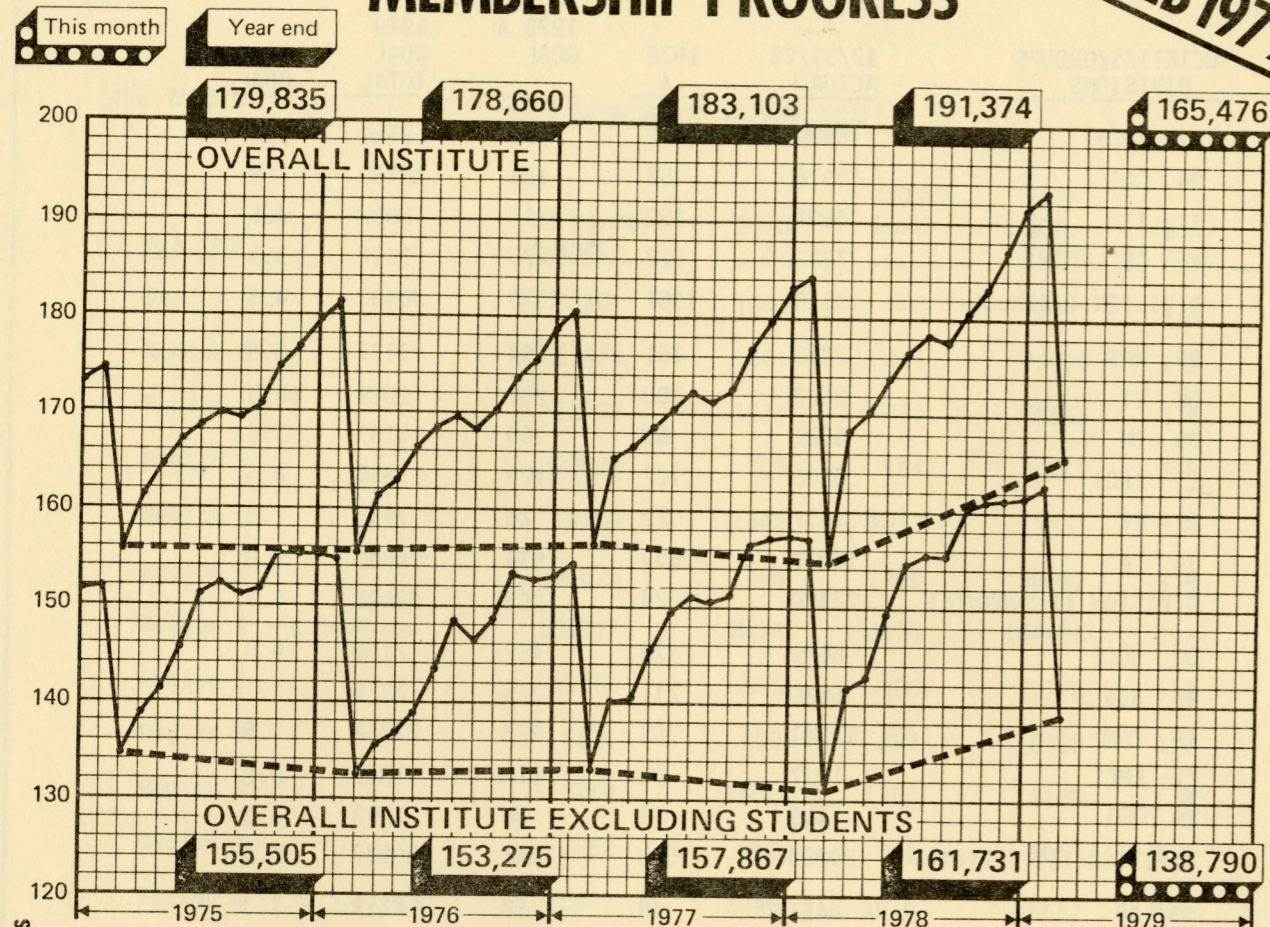
Contact: Gloria Aukland

United States Activities Board



MEMBERSHIP PROGRESS

FEB 1979



Summary of USAB Awards for Professional Activities

Name of Award	Distinctive Features	Presentation
The IEEE United States Activities Board Award for Engineering 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 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, 1979. 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
 2029 K Street, N.W.
 Washington, D.C. 20006



Contact: Bill Herrold

United States Activities Board

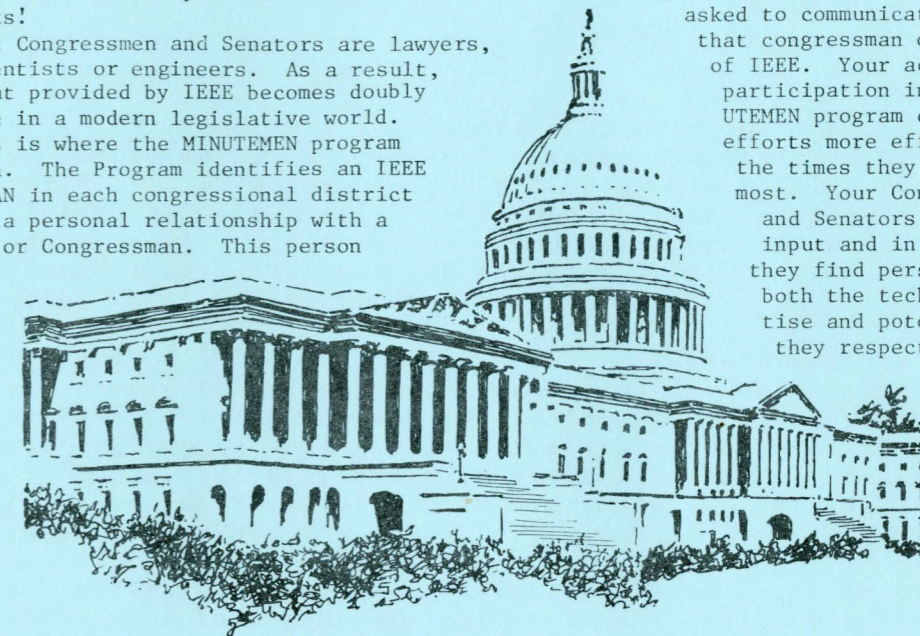
WHEN IT COUNTS

The engineering community needs men and women who will stand up and be heard--when it counts!

Most Congressmen and Senators are lawyers, not scientists or engineers. As a result, the input provided by IEEE becomes doubly valuable in a modern legislative world.

This is where the MINUTEMEN program comes in. The Program identifies an IEEE MINUTEMAN in each congressional district who has a personal relationship with a Senator or Congressman. This person

becomes a key contact for that legislator and from time to time is asked to communicate with that congressman on behalf of IEEE. Your active participation in the MINUTEMEN program can make efforts more effective at the times they count the most. Your Congressman and Senators need our input and in a MINUTEMAN they find personified both the technical expertise and potential votes they respect.



Please fill out and return this form to:

Institute of Electrical and Electronics Engineers, Inc.
United States Activities Board, 2029 K St., N.W.
Washington, D.C. 20006

Yes, I would like to participate in the Minuteman Program and am willing to contact my Congressman on behalf of IEEE.

I have an acquaintance with the following members of Congress or their chief aides.

Please describe the nature of your acquaintance

Name and Address:

Phone: _____

Area Code _____

Business Address:

Phone: _____

Area Code _____



IEEE

Contact: Vincent Giardina

Continuing Education Services

Each year, at this time, we advise the IEEE Unit leaders to consider education programs for their members. We have developed many short course programs, each evaluated by an appropriate expert from the Group/Society involved, to assist you in your Fall 1979 planning.

Two distinct plans, each designed to help you make your program a financial success, are offered:

- 1 - **FULL SERVICE PLAN** - the majority of pre-course activities will be completed by our Continuing Education staff. The local facilities arrangements and promotion are handled by the participating Unit. All "front" money is advanced by the Educational Activities Board and surpluses earned will be shared equally between EAB and your Unit. Losses, if they occur, will be assumed by the EAB.
- 2 - **INSTRUCTOR AND COURSE NOTES PLAN** - All pre-course activities are completed by the participating Unit. We will provide at a nominal cost a competent instructor and the necessary supporting course notes/texts. Your total cost for the program will be appreciably lower than the plan above. Result: lower registration fees for your members and you retain all net surpluses earned.

Below is a partial list of our available courses which we ask you to consider for your 1979 programming. All we require is a five-month lead period. Call V. Giardina at (201) 981-0060 XT. 174/175 now to "book" your program or to arrange for us to help you poll your membership. We will send you a copy of our course catalog on request.

1003—COMPUTER AIDED FILTER DESIGN

A one-day course specifically designed to acquaint the practicing engineer with the use of the computer in various filter design methods (including digital and switched-capacitor filters) as well as with specific computer programs. Level of instruction corresponds to about a senior level college course.

1004—COMPUTER NETWORKS

A one-day course for systems analysts, engineers, engineering managers and others who need a better understanding of the operation, utilization and management of contemporary computer networks including problems associated with planning, procuring, designing and operating such networks. It provides a user-oriented introduction to computer networks.

1029—FUNDAMENTAL MECHANICS FOR ELECTRICAL APPLICATIONS ENGINEERS

A one-day tutorial in the fundamental mechanics required to correctly apply motor drive systems.

1008—MINI/MICROCOMPUTERS

A two-day course for practicing engineers, managers and engineering educators looking for a broad first introduction to mini-micro-computers and their applications. No prior knowledge of computers is assumed.

1009—MINI/MICROCOMPUTER APPLICATIONS

A one-day course for engineers, physical scientists and managers who understand minicomputers and want further information on applying microcomputers, with some hands-on explanation of several current hardware offerings.

1006—MICROPROCESSOR SEMINAR

A two-day course designed to introduce engineers, technicians, and engineering managers to the field of microprocessors. It includes an introduction to microprocessors, a review of computer architecture, a detailed description of a few typical microprocessor families, and some hands-on experience in simple control applications.

1010—INFRARED TESTING

A two-day course for those looking for a practical, better way to carry out temp. measurement, test or process control operations involving thermal processes in the lab or in production. A basic understanding of physics and engineering concepts is necessary.

1011—LINEAR INTEGRATED CIRCUIT APPLICATIONS

A five-day course which provides intensive instruction in the application of Linear Integrated circuits, particularly operational amplifiers.

1017—ENERGY CONSERVATION IN INDUSTRY

A two-day course aimed at energy conservation engineers and others starting out in energy conservation. Participants will be able to establish an effective energy conservation program following procedures in NBS Handbook 115 and to assess its cost and benefits.

1013—ENGINEERING CONSIDERATIONS FOR MICROWAVE COMMUNICATIONS SYSTEMS

A three- or five-day course designed for engineers responsible for maintaining equipment. Its purpose is to give a practical compendium of the best available information on planning and engineering of line-of-sight microwave paths for communications.

1014—INTRODUCTION TO APPLIED MAGNETISM

A two- or three-day course for applications and manufacturing senior technicians and engineers working in metallurgy, computer hardware and circuit system design. It has been designed to illustrate the practical application of basic concepts. Fundamentals of materials; domain magnetism; magnetic circuits, memories and recording; and magnetic material in machines, relays and material fabrication are covered.

1015—OSHA ELECTRICAL

A two-day course aimed at engineers who are responsible for electrical installations, their safety, maintenance, and operation. It deals with the Occupational Safety and Health Administrative (OSHA) Section of the U.S. Department of Labor and its interpretation of the National Electric Code (NEC) present and future.

1016—ENGINEERING ECONOMICS

A two-day course for project administrators, section heads, cost engineers, design and process engineers who must make capital investment feasibility studies or make decisions based on studies of project economics.

1018—ELECTROMAGNETIC COMPOSSIBILITY

An innovative, principle-(not spec)-oriented two-day course concerning the systemic, cost-effective prevention of electromagnetic interference and hazards in uP-, computer-controlled civilian systems (industrial and commercial) where the operating conditions are fundamentally different from those of military/communications systems. An EE degree is necessary.

1019—NUMERICAL AND ASYMPTOTIC TECHNIQUES FOR ELECTROMAGNETICS AND ANTENNAS

A five-day course for engineers, physicists and mathematicians engaged in the design, development and testing of electromagnetic compatibility EMP coupling and spacecraft antennas. Prerequisite-Bachelor Degree in the EE and background in computation.

1020—INTRODUCTION SOLID STATE POWER ELECTRONICS

A two-day course primarily aimed at the engineer with little or no experience in power electronics. It will also benefit those experienced in one area of power electronics who wish to broaden their understanding. High power applications are emphasized. Prerequisite-electrical circuits and calculus will be needed.

1021—POWER SYSTEMS PLANNING

A two-day course for Electrical Engineers responsible for planning and operating power systems, and are interested in problem formulations, solution techniques, and computer systems used for the design of future power systems and in energy control center design and implementation.

1023—POWER SYSTEMS INTERCONNECTIONS

A two-day course is directed towards practicing power engineers wishing to understand some of the aspects of electric power pool planning and analysis. The academic level is for those having a B.S. in Electrical Engineering and possessing a basic understanding of analysis of electric power systems. The course covers the organization of power tools, the benefits of interconnection, a description of the analytical planning and operating studies made at the pool level, principles of economic operation of interconnected systems and modern dispatch techniques involving digital computers.

1024—TRANSIENT PHENOMENA IN POWER SYSTEMS

A two-day course for power engineers having a basic training in solving differential equations and a familiarity with standard power system terminology. It will provide a fundamental appreciation of transients in power systems from steep front, lightning waves to the lower frequency transients caused by switching phenomena in power systems and the dynamic overvoltages that can be created by nonlinear reactions. It will show how to efficiently analyze T&D systems and take corrective action.

1026—PROTECTION AND GROUNDING OF DISTRIBUTION SYSTEMS

A two-day course for power engineers having a brief or introductory knowledge of relay and distribution systems to increase their knowledge on the fundamentals of system grounding and its influence on system protection. Other class selected protection areas will be covered.

1027—PRACTICAL APPLICATIONS OF SYMMETRICAL COMPONENTS

A two-day comprehensive review of basics and practical applications of symmetrical components, for power engineers; undergraduate or graduate engineers.

1028—SIMPLIFIED AUTOMATED TEST AND MEASUREMENT SYSTEMS (via the IEEE-48 Standard Digital Interface Bus)

A one-day introductory course for all who are engaged in putting together automated systems. With emphasis on practical applications of off-the-shelf components, it will introduce a systems view of IEEE-488. The Standard interface bus is the communications pathway from a controller to instruments; programming an instrument system; a summary of bus specifications; applications to measurement problems in production testing; and a survey of additional applications.

1032—QUANTITATIVE ANALYSIS OF ALTERNATIVE ENERGY SYSTEMS

A two-day course that provides a view of the U.S. energy economy in a format that suggests an evolutionary development from a fossil fuel to a solar energy-based system. Considerations include the possible use of geo-thermal energy and of aeolian, biomass, hydrological, oceanic, photochemical, and thermal manifestations of solar energy. The potential contribution of these various regenerable energy sources and the state-of-the-art of some of the necessary energy conversion/storage devices are summarized. Synthesizing from this material a first iteration for an energy system "mixed" for 2000 A.D. is presented.

1033—COMMUNICATE FOR RESULTS

A one-day tutorial for professional people that will enable them to get their ideas across by using the principles of communication feedback. Exciting things are happening in the Management environment and this course will help you become a part of the action.

1034—CONVERTING YOUR IDEAS INTO A PROFITABLE BUSINESS

A one-day course for those seeking ways to start and finance a new business. The course will demonstrate a variety of approaches one may use to exploit ideas and new products profitably starting with limited financial resources on either a part-time or full-time basis. Some experience in industry is desirable.

1036—HOW TO START A BUSINESS AND MAKE IT GROW

A one-day course designed for those committed to starting a full-time business or, to those with an established company who are seeking ways to increase sales and profits or, to those considering a mid-career change. Some experience in industry is desirable.

1037—THE LIFE/WORK PLANNING PROCESS

One- or two-day course for those wishing to take control of their own career in life. It will introduce you to principles and techniques by which you can inquire into your real abilities and interests, to determine what you really want to accomplish, and how to go about developing a Master Plan that will assist you in achieving your goals.

1038—MANAGING YOUR CAREER ASSETS

A two-day workshop intended for managerial, professional and support staff personnel in both technical and non-technical fields. This Career Development Workshop will help you discover the full range of your personal and professional talents and abilities, set goals, and Develop and Implement a strategy in your current work activity which emphasizes what you do best and enjoy most. Lecture, discussions and written assignments to help you assess your career assets and to develop practical approaches and plans to achieving priority results for yourself and your organization.

1041—NATIONAL ELECTRICAL SAFETY CODE

A one-day course aimed at utility engineers concerned with transmission and distribution line clearances, strength, loading and grounding. There has not been a revision of ANSI C2.2 since 1960 until the 1977 edition. The changes in the new edition are very substantial, and registrants upon completion of this seminar will obtain a useful grasp of the reasoning underlying the changes in the latest Code and learn vital comparisons between the old and new Codes.

1042—ADVANCED TECHNICAL READING

A three-day course designed for all levels of engineers and engineering management. It will dramatically improve participant's ability to organize and systematize difficult reading requirements, resulting in a substantial reduction of time expanded along with improved understanding and retention. Critical thinking and reading for understanding are emphasized.

1043—THERE IS A MICROPROCESSOR IN YOUR FUTURE

A two-hour introductory course designed to provide the participant with answers to many questions being pondered regarding the much talked about microprocessors and how they are used. It can be scheduled as an after luncheon presentation for company executives.

1044—ASSEMBLY LANGUAGE PROGRAMMING FOR MICROPROCESSORS

A two-day course to acquaint engineers, programmers, and technicians with the basic methods for programming the most common microprocessors in assembly language. The course is directed toward specific widely used microprocessors (either the Intel 8080/8085 or the Motorola 6800) and toward the solution of common engineering problems. The textbooks by Dr. L. Leventhal, contain numerous examples of the use of the processors in everyday situations.

1045—COMPUTER GRAPHICS

A two- or three-day course that covers both theoretical foundations and basic concepts of typical display systems. It has been specifically designed for engineers working in any design area, e.g., Computer-aided design along with how Computer Graphics can help in various application areas. Familiarity with Computers would be helpful.

1046—INTRODUCTION TO CAD/CAM

A three-day course designed for those needing to get started on the technological path to increased industrial productivity. This course will introduce the vocabulary, concepts, considerations and practices of computer aided design and manufacturing.

1047—JOHNNY MICROSEED

A two-day introductory course that brings microprocessor technology to local groups quickly and leaves them with an effective means for continuing study. Day 1—An intensive overview of the entire microprocessor field using the Intel 8085 for specific examples. Day 2—(optional) trains a small group to use and teach from a set of six well-documented experiments using an Intel 8085 microprocessor kit.

1048—MANAGEMENT AUDITING OF COMPUTER SYSTEMS

A two-day seminar that will analyze the continuing need for the auditing of computer system development and operations. Primary stress will be placed on the real impact of the computer on the entire operation of the organization.

1049—COMPUTER SECURITY AND INTEGRITY-A TUTORIAL

A two-day tutorial course intended to provide an introduction and overview to current thinking and the state-of-the-art in computer security. Where tradeoffs have to be made, the intent is to be broad rather than deep in coverage. It is more important, at the outset, to appreciate how all the concerns and technologies are interrelated, rather than all the details of any particular technology or implementation. Adequate references are provided in all the readings to obtain any desired depth of information on any of the subjects covered.

1050—INTENSIVE MICROPROCESSOR PERIPHERAL APPLICATIONS

Several versions of this course are currently under development. Please contact our CE manager.

1051—DIGITAL CONTINUOUS SYSTEM SIMULATION

A one-day course to introduce the advantages and capabilities of digital simulation to those who have an interest in dynamic system modeling and analysis. It will assist the participant in finding a model in state variable form for computer simulation and introduce typical software advantages and capabilities for digital simulation, high level languages of the CSSL, type, DARE P, DARE/11, CSMP and examples of batch-oriented simulation using a high-level language.

1052—OPERATIONAL AMPLIFIER THEORY AND APPLICATIONS

A one-day course designed to introduce the basic circuit design using ideal operational amplifier model and introduction to operational amplifier applications in active RC filtering, nonlinear signal processing, analog switching and A/D-D/A conversion. It will also cover the methods of estimating effects of manufacturer's specifications on circuit performance.

1053—STRUCTURED PROGRAMMING AND SOFTWARE ENGINEERING

A two-day course organized to provide an update to those who have an interest in managing software architecture design and production. It will cover principles and applications in structured programming and software engineering including step-wise refinement, program correctness and top down system development. There will be some actual practice in problem solving design development. Prerequisite — some experience in program design or management.

1054—INTRODUCTION TO COMPUTER PROGRAMMING USING FORTRAN (or COBOL or PL/I)

A one-day course intended to give a first acquaintanceship with computers and programs; to give a feeling for what can be accomplished with computers; to provide a basis for deciding whether to take a more intensive course in programming.

1055—INTRODUCTION TO FORTRAN (or COBOL or PL/I) FOR PROGRAMMERS

A one-day course intended to give an introduction to a second language to persons who already understand the basic concepts of programming; to provide a basis for further self-study or for deciding whether to take a more intensive course in the language.

1056—DATA PROCESSING SYSTEM DESIGN

A two-day course intended to apply system engineering concepts to the design of a data processing system, with the emphasis on the creation of software (programs) rather than the selection of equipment; to explain the many trade-offs which must be considered; to illustrate how to put principles into practice.

1057—STATISTICAL PROCESSING USING SPSS (STATISTICAL PROGRAMS FOR THE SOCIAL SCIENCES)

A two-day course intended to gain enough of a practical introduction to SPSS so that students would, with some self-study, be able to use SPSS in their jobs.

1058—INTRODUCTION TO THE USE OF IBM 370 COMPUTER SYSTEMS WITH MVS AND JES2

A two-day course intended to take a first step in making it possible for users of IBM 370 computers running with the MVS operating system and JES 2 job entry subsystem to prepare their own computer runs and to deal directly with the simpler types of errors.

1059—INTRODUCTION TO THE USE OF IBM 370 COMPUTER SYSTEMS VIA INTERACTIVE TERMINALS AND TSO (TIME SHARING OPTION)

A two-day course intended to introduce programmers used to the batch mode of processing to the efficiency, speed, and convenience of on-line program preparation and execution.

1060—ANALYSIS, DESIGN AND OPERATION OF EHV TRANSMISSION LINES

A two-day course to acquaint power engineers with various factors that must be considered in optimizing EHV transmission lines for reliable and economic operation. Toward this end, discussion of various phenomena, equations and design criteria will be undertaken.

Continued Education
makes **the** big difference

1061—COMMUNICATION SATELLITE SYSTEMS

A two-day course of study that provides a broad overview of space communications to educators, engineers and managers who wish to achieve a working knowledge of the field. It covers the state-of-the-art in space communications, and discusses future trends. Emphasis is placed on communication sub-systems, with some discussion of supporting sub-systems.

1062—CIRCUIT INTERRUPTION THEORY

A two-day course of circuit interruption problems, circuit breaker selection and voltage transients caused by circuit interruption. It is recommended for engineers working in electric utility companies; large industrial plants; regulatory agencies; consulting firms; designers of electrical equipment; and educators. The course is taught at a graduate level. Understanding of electric power system analysis is necessary.

1063—SOLAR ELECTRIC SYSTEMS

A two-day course developed for those desiring to understand the principle and operation of Solar Electric Power Systems. Discussion will include up-to-date information on the design and availability of commercially available systems. Review of large scale Power systems; such as U.S. Department of Energy national projects, as well as small, independent solar electric power systems for individual home installation will be covered.

1064—RADIO SPECTRUM MANAGEMENT

A one-day course designed to provide participants with an understanding of the political, economic, social and technological issues inherent in formulating U.S. policy, and related topics of vital concern to telecommunications. Included will be a discussion on capability for providing efficient and economical telecommunication services; potentials and limitations of the domestic, mobile and international telecommunication systems; use of radio spectrum and many others. The course will review the costs related to development and operation of a telecommunications system and cost allocation among four areas; systems, rate base, technical replacement and research and development.

1065—PHASE-LOCKED LOOPS: DESIGN AND APPLICATIONS

A two-day course covering a rapid tour of the design principles and shows you the principle points that experience has revealed to be important. After a brief fundamental lecture selected applications show how Phase-Locked Loops can be applied in common esoteric ways.

1066—PARTICULATE/GAS CLEANING BY STATIC PRECIPITATION

A two-day electrostatic-precipitator course intended to develop in the participant - newcomer, user, consultant or vendor - an awareness of the theoretical and practical scope of the subject. It includes an appreciation of its most important industrial applications, current areas of research and practical problem solving techniques.

1067—LIGHTNING AND GROUNDING

A two-day course intended to provide the necessary information and design procedures for developing suitable grounding systems and reliable lightning protection systems for personnel building and equipment protection. The information is based on very recent developments in both fields, not related to the synthesized bases previously used.

1068—LIGHTNING PROTECTION OF ELECTRONIC SYSTEMS

A two-day course designed to acquaint engineers with the various ways in which lightning interacts with electronic systems, and provide them with techniques that can be used to protect present and future systems from interference or damage.

1069—INTRODUCTION TO ACCIDENT, SAFETY AND FORENSIC ENGINEERING

A one-day course designed to assist engineers in establishing Systems Engineering in a broader context than presently viewed. It will establish foundations for enhanced safety efforts as well as educate design and development engineers regarding the apparent present and forthcoming trends in safety and forensic engineering. It will provide pertinent professional employment opportunity details for experienced older engineers. Prerequisite: basic physics or systems engineering background.

1070—RADAR DETECTION CALCULATION PROCEDURES

A one-day course for those who want to become adept at, and confident in, radar detection calculations. A step-by-step cookbook procedure is presented through illustrative examples, for obtaining radar detection performance. The procedures covered are applicable to a variety of radar target models such as: nonfluctuating; Rayleigh; Swerling case 1 through 4; chi-square of arbitrary degrees of freedom; Rice; lognormal; and Weinstock. Taken into account are the losses due to the beamshape factor, constant false alarm rate (CFAR) processing, IF mismatch, amplitude quantization and time or frequency sampling. Both single scan and cumulative probability of detection are included.

1071—MANAGEMENT OF NEW TECHNOLOGY PROJECTS

A three-day course designed to teach the fundamentals in project leadership/management involvement. It basically is designed to orient new project leaders and managers in the tools and techniques needed to successfully monitor, plan and direct multi-activity technical projects.

1072—EXPANDING THE PRODUCTIVITY OF THE MANAGERIAL MIND

A two-or three-day course designed to teach participants how to examine the development and working structure of the human mind; to learn how to use this structure more effectively; to achieve an addition to the information base from which future decisions are made. Participants are taken through the seven basic steps in the thinking mind and learn to cope with the outside world and learn to ideate and process their thinking in an effective manner. It will teach them how to use the storehouse of the mind and its information handling abilities for more effective and creative solutions.

1073—SUCCESSFUL DECISION MAKING

A two-day course on how to be successful in decision making by using your experienced-based intuition with quantitative methods.

1074—HOW TO ACCOMPLISH MORE IN LESS TIME

A two-day course designed to show how you can accomplish more by using time management principles which are based on science. You learn to decide on what to do and when to do it (effectiveness) and then how to do these things with time saving methods (efficiency).

1075—THE SYSTEM APPROACH TO MANAGEMENT

A two-day concentrated seminar to demonstrate new alternatives and options for using MBO as a practical management method. It will present new management techniques that can be started in your organization to help improve cost/performance ratios. Techniques will be shown to effectively identify and meet your goals and to make your operating more productive and profitable. It offers a step-by-step approach to the MBO system, to help your plan, implement and maintain a productive system.

1076—DEVELOPING MANAGERIAL SKILLS OF ENGINEERS & SCIENTISTS

A two-or five-day seminar-workshop designed to provide engineers with a working knowledge and an understanding of the complex function of engineering management. It will give the participant an awareness and appreciation of management problems by helping them to develop an approach to dealing with these problems and to work at their full potential.

You receive CEAs plus an IEEE Certificate of Achievement

Under IEEE's new system for rewarding individual performance in non-credit courses, Continuing Education Achievement Units (CEAs) will be awarded to any student of an EAB-approved continuing education program upon completing the course and passing a written examination or some form of performance evaluation. One CEAs signifies 10 hours of participation. Earned CEAs will be permanently recorded in IEEE member files.

Learn Microprocessor Programming and Application Techniques

This self-instruction program covers microprocessor basics, computer arithmetic, programming, interfacing and much more. It assumes a familiarity with digital techniques. The most advanced of Heath's self-instruction programs thoroughly covers the fascinating world of the microprocessor. Though the subject is complex, this program deals with it in a logical, easily-understood manner that is not difficult for the student to grasp. Every-

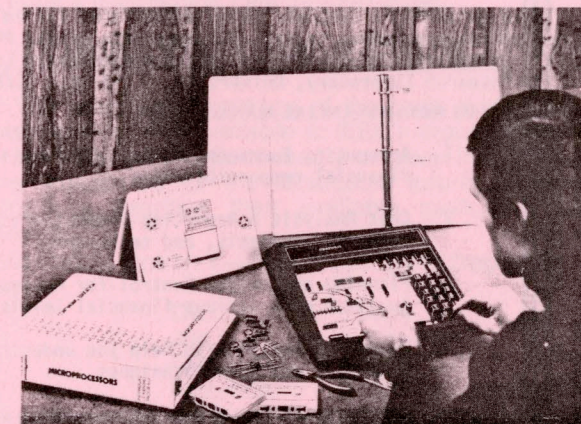
thing is included except for a few basic hand tools and a cassette player. The student's progress is self-paced and therefore unhurried. Step-by-step "programmed" instructions ensure a high level of understanding in a short amount of study time. Cassette tapes and a colorful flip chart reinforce key text material. An optional final-exam lets the student test his comprehension of the material.

IEEE adds rewards to an already rewarding course

Approved and guaranteed by the IEEE Educational Activities Board

The Heathkit ETS-3400 Microprocessor Course is fully approved by the IEEE Educational Activities Board (EAB) as a worthy self-study course for engineers who would like to master microprocessor programming and application techniques. As with all EAB-approved courses—whether generated within IEEE or by another source—ETS-3400 has been certified as worthy by an acknowledged expert from one of the 30 IEEE Societies/Groups (in this case, the IEEE Computer Society).

Any purchaser who decides that the program is anything less than described in this announcement may return all text materials and the unopened Trainer kit within two weeks of delivery for a full refund of the purchase price.



PUT YOURSELF IN THIS PICTURE. The ETS-3400 home-study course contains everything you need to learn microprocessor operation, interfacing and programming at your own pace and at those times convenient to you.

All students successfully completing the ETS-3400 Microprocessor Course—including a grade of 70% on the final "open-book" written examination as supplied and authenticated by the Heath Company—will be awarded eight CEAs, a seal of completion for this course, plus an IEEE Certificate of Achievement containing spaces for the placement of nine additional seals of completion.

IEEE members receive a \$35 rebate of the course fee

Because we want our members to continually advance in their careers, we are underwriting—for IEEE members only—the sum of \$35.00 upon proof of satisfactory completion of this course when the course is ordered through the IEEE.

This will be in the form of a rebate check to those members who fulfill the requirements outlined above—70% or better grade on the final examination as authenticated by the Heath Company.

To Order this Course:

Specify full title—Heathkit ETS-3400 Microprocessor Course—and send your order to: IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854. Course fee: \$269.95, plus \$3.64 shipping and handling charge. Make check payable to IEEE in the amount of \$273.59.

For Further Information:

Questions relating to CEAs, IEEE member rebate, etc., should be addressed to: IEEE Education Registrar, 345 East 47th Street, New York, N.Y. 10017

HOME STUDY & VIDEO PROGRAMS

HS 9001-TECHNICALLY WRITE!

Have you ever wondered how you could transmit technical and business information more clearly, efficiently, and persuasively? If, like many engineers, you have difficulty in putting your thoughts into compelling action-provoking words there is now something you can do about it.

TECHNICALLY WRITE! is an all-new IEEE Home Study Course that offers an interaction between you and a professional instructor who appraises your work and sends you a practical critique.

Eleven broad topic packages of instruction are included, that, on the average, can be completed in 3 1/2 months. You will learn exactly where the difference lies between ignored, misinterpreted, or on-target communications, including occurrence reports, field trip reports, letter writing, job descriptions, resumes, technical paper presentations and many others.

HS 9002-PROJECT LEARN

This speed learning self-instructional reading program consists of 4 cassettes, 3 workbooks, and 5 paperbacks, all of which are geared to develop more efficient reading-learning skills.

The course approaches reading as a thinking process (as opposed to the so-called speed reading techniques which espouses eye-movement, muscle exercises) and utilizes a seven-step, skill-building process which builds comprehension, retention and speed.

HS 9003-CDC PLATO® SYSTEMS

A multi-media computer based educational system, the CDC PLATO management courses are a version of the PLATO RESEARCH SYSTEM developed at the Computer-based Education Research Laboratory, University of Illinois (CERL).

A. HS 9003.1-FINANCIAL MANAGEMENT

1. Accounting Fundamentals-to help identify manager financial responsibilities.
2. Cost Analysis & Reporting-understanding its elements, concepts, and techniques.
3. Planning and Budget Control-for managers involved with various financial levels.
4. Financial Analysis-to help you understand financial analysis techniques.

B. HS 9003.2-PROBLEMS ANALYSIS AND DECISION MAKING for managers desiring to learn how to analyze operational problems.

HS 9004-CREATIVE LIFE/WORK PLANNING

A course specifically designed to help you develop goals and to find ways to reach those goals. It emphasizes principles and techniques on how to: collect information about yourself; go out and meet people; "improve your odds" with analysis of information collected and proceed toward goal.

NEW IEEE VIDEO-TAPE SHORT COURSES

Schedule NOW for these courses to be available to groups beginning September 1978: 1. Designing With Microprocessors; 2. Modern Control Theory—Systems Analysis; 3. Heating & Cooling of Electrical Equipment; 4. Engineering Economics; 5. Manufacturing Quality Control. Courses feature outstanding instructors on industrial-type 3/4 in. video cassettes supplied by IEEE on a rental basis. Duration varies between 6 and 16 hours and fee includes a course workbook for each student. These are excellent courses in a modern format—ideal for IEEE Sections, Chapters, and in-plant presentation. Prepare now. Contact IEEE today.



We recommend, as a first step, that you select the programs that will interest your members. Then, complete the application below and mail it to Vincent J. Giardina, 445 Hoes Lane, Piscataway, New Jersey 08854. He will provide you with the assistance you need.

I am interested in scheduling the following short course:

I would like to introduce the following Home Study Program in my Section:

I am interested in renting a Video Cassette Course. Please send information to:

NAME _____ ADDRESS _____

CITY _____ STATE _____ ZIP _____

RAB NEWS, continued

details, write to the Field Services Department at Headquarters.

OFFICER ELECTIONS

All Sections are requested to provide the Field Services Dept. with prompt notification of the membership numbers, names, addresses, and telephone numbers of all Section, Subsection, and Chapter officers elected during the next few months. The same information on the following committee officers is also requested: Student Activities, Membership Development, Professional Activities, Educational Activities, and Section newsletter editors. Standard reporting forms are available from the Field Service Dept at Headquarters.

USAB NEWS

CONFERENCE ON U.S. TECHNOLOGICAL POLICY

The 1979 Conference on U.S. Technological Policy is scheduled for May 1-3 at the Sheraton National Hotel in Arlington, Va. This year's theme is "Stimulating Innovation through U.S. Policy." Speakers include Senator Adlai E. Stevenson III, chairman of the Subcommittee on Science, Technology, and Space, who will address the conference on the subject of Congressional influence on the industrial innovation process. In the other conference highlights, Congressman James C. Corman will speak on IEEE interaction with the Congress; Congressional staff members will participate in a panel discussion on impacting Congressional decision on technical issues; and former Congressman James G. O'Hara will speak on Congressional members and committees fundamental to IEEE interests. The keynote address, "Technology in Modern Society," will be delivered by IEEE President Jerome J. Suran. For further information, contact Leo Fanning at the Washington Office.

RECOGNIZING PROFESSIONALISM

USAB's formal program of awards and recognition for service to professional activities begins officially in 1979 (see USAB insert, pp. 2M-2N). The deadline for receipt of nominations is May 15, 1979. Further information and nomination forms are available from Gloria Aukland in the Washington Office.

CONGRESSIONAL FELLOWSHIPS

The deadline for receipt of applications for IEEE's three annual Congressional Fellowships has been extended to April 30, 1979. For details contact Tom Suttle in the Washington Office.

IEEE's 1979-80 Congressional Fellows have chosen their assignments for the year. Ian White will serve on the personal staff of Rep. Mike McCormack (D-Wash.), and David Lewis will serve on the staff of the Subcommittee on Energy, Nuclear Proliferation, and Federal Services of the Senate Committee on Governmental Affairs.

AGE DISCRIMINATION AND ETHICS

At its first meeting of 1979, the United States Activities Board approved procedures for handling requests for aid in situations involving alleged age discrimination. USAB also recommended changes—later adopted by the Board of Directors—in the IEEE Code of Ethics to state clearly that the Code shall also apply to member interactions in Institute activities and relationships among members as IEEE volunteers.

MINUTEMEN RIDE AGAIN

USAB needs volunteers to participate in its "Minutemen" legislative action programs (see insert, pp.

40-4P). Contact Bill Herrold at the Washington Office for further information.

SALARY AND FRINGE BENEFIT SURVEY

A questionnaire for the IEEE Member Salary and Fringe Benefit Survey has been sent to one out of every five IEEE members (excluding students and retirees). A large response rate will enable publication of more detailed salary information, such as levels of professional responsibility within industry or service to the employer. Members who receive questionnaires are urged to complete them and return them by May 5. Contact Sandee Blair of the Washington Office for details.

LEGISLATIVE AND REGULATORY ACTIVITIES

USAB has requested to present testimony during hearings of Congressional committees on the issue of appropriations for NASA, the National Science Foundation, and the U.S. Department of Energy, and to hearings of the Federal Trade Commission on standards issues. Patent legislation of interest to IEEE has also been reintroduced in the 96th Congress, and USAB will request to testify during these hearings as well. Watch for details in future issues of EE and THE INSTITUTE.

USAB INFORMATION LINE

With activity on IEEE-supported bills being stepped up in Congress, listen for calls for legislative action on USAB's Information Line 202-785-2180.

CONSOLIDATED INVESTMENT OPTIONS

The recent performance of the cash management investment options available to IEEE's organizational units is reported below. Continued increases in interest rates are anticipated for the foreseeable future. All units are urged to examine their available cash for optimum returns.

Investment Option 1—Short-Term Bank Deposits* :

Dec.	9.50%	
Jan.	9.00%	
Feb.	9.00%	
Mar./May	8.75%	(estimated)

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

Dec.	10.04%	
Jan.	10.02%	
Feb.	10.08%	
Mar./May	10.00%	(estimated)

Investment Option 3—Bond Plan†

Dec.	9.43%	
Jan.	9.33%	
Feb.	9.24%	
Mar./May	9.15%	(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 at (201) 981-0060, ext. 123, or Thomas W. Bartlett at (212) 644-7748.

NOMINATIONS DEADLINE

Deadline date for receipt of nominations for the Medal of Honor, Major Annual Medals, and Service Awards is JUNE 1. For details refer to the December 1978 issue of THE INSTITUTE. For forms and information contact Una B. Lennon at Headquarters.

PUB NEWS

Spectrum entered the 1979 publishing year with its January special issue, "Technology '79." A review of today's technology, the issue focuses on the real—as opposed to theoretical—developments in hardware.

In recognition of the centennial year of the invention of the light bulb, February *Spectrum* offers an article on the creative style of Thomas Edison, based on the inventor's notebooks and correspondence. In the March issue, *Spectrum* reports on a survey revealing that today's college students are attempting to learn about today's technology with yesterday's equipment. To accompany ELECTRO '79, an article in *Spectrum* April takes a look at ELECTRO's technical program, which will include an international electronics forum this year.

Spectrum's "Amazing MicroMouse Maze Contest" is drawing to a close. The last time trial will be held at ELECTRO '79, April 24-27 at the New York Coliseum. The final runs, to be televised by all three major television networks, will take place during the National Computer Conference, June 4-7 at the Sheraton Centre, New York City.

CHAPTER/SECTION NEWS

The Computer Chapter of the Tucson Section was established.

The Computer Chapter of the Broward Section was established.

The Engineering in Medicine and Biology Chapter of the Nebraska Section was dissolved.

The Missouri Slope Subsection of the Twin Cities Section in Region 4 was established.

Quick-Reference Telephone Roster

(for information referenced in this issue)

HEADQUARTERS (212-644 . . .): Bob Asdal 7759; Audrey Bickel 2123; Una Lennon 7882; Mark Lucas 8080; Emily Sirjane 7757.

WASHINGTON OFFICE (202-785-0017): Gloria Aukland; Sandee Blair; Leo Fanning; Bill Herrold; Tom Suttle.

PISCATAWAY SERVICE CENTER (201-981-0060): Vince Giardina.
