

ELECTRICAL ENGINEERING®

"HUMAN NATURE IS NOW IN REVOLT against being tormented by technology just for technology's sake, and this revolt makes sense." —Arnold Toynbee.

It's not Who says What.

Is it true?

IT DOESN'T TAKE LONG for a historian, publicist, or poet to jump on a passing bandwagon. His output is pedantic, his voice stentorian, his acceptance automatic. Where technology meets the determination of public policy in the parliaments, his influence is out of proportion to his responsibility which may be nil. His public can be made to weep over high wisps of smoke. But the same public, which flicks its demand on engineering with one finger, can be reduced to outrage if voltages are dropped or loads shed.

Can electrical technology find a voice? Does it need one? (See Spectrum, April, p. 17; May, p. 31.)

CHALLENGES AND OPPORTUNITIES

EARLY START ON 1972 BUDGET. Historically, IEEE has started its budgeting function for each calendar year in the preceding summer. Because of the unsettled financial conditions during 1970 and the reductions necessary to keep the budget in near-balance, we incurred a 1% loss. (See Treasurer's Report in June '71 Spectrum.) To get more precise control the whole 1972 budgeting process was moved up to February 1971, with the first look shown to the Board of Directors (BofD) during their recent March meeting.

In this way extra time has been gained for organizational units to set plans for 1972, judge the inflationary effects, and calculate the bare minimum income needed to cover objectives. It is recommended by the Finance Committee that every unit of IEEE take an early look at its budget for 1972.

ORGANIZATION ROSTER SEPT. '71 is already in preparation. Literally thousands of changes in the current Mar. '71 Roster must be made, most being linked to shifts in officers of Sections and their subsidiaries on July 1.

It is of the utmost importance, lest issuance of the September Roster be delayed, that superseding information be sent to IEEE direct within 20 days after election or appointment in each case (not 20 days after taking office). (Bylaw 401.5)

TOP-SIDE DEVELOPMENTS

NOMINATIONS FOR ELECTION. BofD in March approved officer-nominees for places on the ballot in September: For President 1972, Robert H. Tanner; for the Vice President elected by voting members, Harold Chestnut.

To those candidates have, by now, been added the nominees for Regional Directors of odd-numbered Regions 1 to 9 and for Technical Directors of Divisions I and V. There are multiple candidates in each of the Regions and Divisions.

All names will be run in June '71 Spectrum, together with a required notice as to any nominations-by-petition, due noon, July 30. (Constitution, Art. XII, Sec. 3; Bylaw 313.5.) Ballots will go out by Sept. 1 (Art. XII, Sec. 4). To be counted they

must be returned by Nov. 1 (Bylaw 313.9). Tellers' count is by Nov. 8. BofD will announce elections Nov. 18-19.

CONSTITUTIONAL AMENDMENTS PROPOSED. A petition submitted by Dr. Victor Galindo, proposing changes in Article I, Sections 2 and 3, and in Art. III, Sec. 3, has been duly received under Art. XIV, Sec. 1, Amendments, and validated as to the required number of member-signatories. In accordance with Bylaw 315.2 (see E.E. Apr., p. 8) the proposals will be put to the voting members Sept. 1, along with ballots for officers and Directors. For subsequent timetable, see previous item.

"EMPLOYMENT INFORMATION," a new 28-page pamphlet outlining the steps required of members to get jobs in the face of widespread unemployment, has been prepared. The Employment Workshops, run cooperatively by the U. S. Department of Labor, the American Institute of Aeronautics & Astronautics, and the IEEE, have been tapped for materials.

President Mulligan and the Directors, individually, are solicitous that a copy of this brochure find its way to every IEEE member who has been laid off or who fears that he may be. 3,000 copies are in the mails now in response to postal card requests clipped from Spectrum, Mar., p. 119. (Copies, Jack Kinn)

ADDITIONAL GOVERNMENT AID to put jobless engineers, technicians, and scientists back to work was announced in April. Half of a \$42-million program will be available before July 1 for job retraining, skill conversion, grants enabling applicants to explore specific job opportunities outside home areas, and relocation grants. The National Registry for Unemployed Engineers (E.E. Feb. pp. 1-2) will be tied in, as will State Employment Service offices embracing 14 critical areas. There is further information about this aid

in the pamphlet offered in the previous paragraph; see also Spectrum, May, pp. 7-8. Regional Directors have details in depth.

EMPLOYMENT ACTIVITY IN REGION 6 has been going on long enough to have developed features of interest to other Regions. A report by Regional Director Guarrera is appearing in Spectrum, June, p. 6.

ROLES OF PROFESSIONAL SOCIETIES in the political and economic lives of their members is the subject of an article by Harold J. Ammond, Executive Secretary, Association of Scientists and Professional Engineering Personnel, printed in the society's organ "The Exponent," and reprinted on p. 4-E of this issue of E.E. It is pertinent to IEEE's endeavor to increase the effectiveness of the Institute and its members in our relations with society.

WOMEN IN ENGINEERING. An Engineering Foundation (EF)-sponsored work-shop-for-fee on this subject will convene July 12 at New England College, Henniker, N. H. (near Concord), under chairmanship of Dean Geo. Bugliarello, Univ. of Illinois at Chicago. IEEE will have an official representative, Dr. Julia Apter, attesting to interest of EAB and a succession of BofDs in eventually increasing the number of women members in IEEE (638 now: E.E. Feb., p. 8). (Cf. also E.E. June '68, p. 2.) (Information, Mrs. Emma White; also from EF, address same as IEEE)

NAMES FOR REGIONS. Regions are known by their official designations, 1 to 10 in Arabic numerals. Members who have infrequent occasion to deal with them have expressed difficulty in visualizing the numbers on a map. Now, except for Regions 8 and 10, which are not readily categorized, Regions, in addition to referring to themselves by numerals may, by authorization by ExecCom, optionally adopt the following:

United States: Region 1 - Northeastern Region; 2 - Eastern; 3 - Southeastern; 4 -

Central; 5 - Southwestern; 6 - Western.

Others: Region 7 - Canadian Region; Region 9 - Latin American Region.

Demarcation of the Regions is given on maps in the frontispiece of the Organization Roster (current one, March '71; copy Emily Sirjane).

Optional names have not yet been authorized for the technical Divisions. They are officially known by (Roman) numerals: Divisions I to VI.

EXECCOM MEETINGS SCHEDULE (E.E. Feb., p. 3) has been revised. The May meeting date was the 28th. The June meeting has been cancelled in favor of one on July 14-15. The October date is still open.

A BYLAW SUBCOMMITTEE OF ExecCom has been appointed under Secretary Whinnery to formulate precise wording of recommended Bylaw changes preparatory to consideration by ExecCom or BofD.

LABELS DENIED FOR PROMOTIONS. ExecCom recently refused prestigious publishers IEEE-member lists for book sales promotion. The governing principles are in Statement of Policy #6, especially 6-B, 4. (Statements of Policy appear in the Section and TAB Manuals. Copy, Emily Sirjane or Marian Herrick)

PUBLICATION NEWS

IEEE PRESS. (E.E. Feb., p. 4; Apr., p. 4) A book on the implications of the (U. S.) Clean Air Bill has been added to the three prospective titles already announced and the IEEE Press budget adjusted accordingly. The added book will have public-service overtones.

IEEE REPORTS FOR 1970. Of reading and reference value to all members actively concerned with IEEE affairs, the reports of last year's Secretary and Treasurer, with an introduction by President Mulligan, will be printed in Spectrum, June '71, pp. 56-68.

JOURNALS ON MICROFILM. Quite apart from current publications, now available

in microfiche (microform) (E.E. June '68, p. 3; Dec. '69, pp. 3, 4K), ExecCom has authorized the Publications Board (PUB) to offer, by agreement with Princeton Microfilm Corp., IEEE journals to libraries on microfilm. The complete back file of AIEE, IRE, and IEEE journals, 1884-1970, and annual updates from 1971, will be sold in 16-mm and 35-mm positive and negative open reels; also in 3M-Co. and Recordak 16-mm cartridges. Net income will be shared by the individual Groups and Societies at interest and by IEEE as a whole in accordance with formula. (Information, Reed Crone)

COMMITTEE NEWS

IEEE HISTORY COMMITTEE, in discharge of its Bylaw 311.4 responsibilities, has been authorized by ExecCom to deposit in an appropriate library or museum any historical material offered, such as collections of papers or devices made by living or deceased members. An annually updated record of collections and repositories will be kept for the information of inquirers. The Committee alternatively will make recommendations to ExecCom in cases where collections are of unusual size, value, or rareness.

The historical display under glass in the 10th-floor lobby at IEEE headquarters (E.E. June '69, p. 8) has assumed interest and significance, thanks to curator Reed Crone. It will be added to from time to time.

INTERNATIONAL CONVENTION (INTERCON). The Conference Board and Convention Department have brought out an 8-page, illustrated, glossy tabloid, "Expo News," summarizing 1971 Convention successes, meetings and exhibits figures; making comparisons; and announcing a goal for "2-minute registrations" at 1972 "Intercon," as it will be known. This mailing piece is of equal interest to members, IEEE officials, and exhibitors past and future. (Copy, Joe Doblmeier)

Technical Program Committee '72, headed by Jack L. Jatlow, New York, will include W. E. (Gene) Cory, San Antonio; R. W. Lucky, Holmdel; J. A. A. Raper,

Syracuse; W. G. Scheerer, North Andover. All Groups/Societies were asked to suggest sessions and speakers by June 8. To stimulate non-U. S. papers, G. Van den Broek, France, has been named vice chairman international participation.

EAB HAS TWO NEW COMMITTEES. To help make tangible BofD interest in two live subjects, Educational Activities Board (EAB) has created a committee on Professional Opportunities for Women and one on Professional Opportunities for Minority Groups. See Spectrum, June, p. 8.

REGION AND SECTION NEWS

"DOG DAYS." With a summerful of sun-burning absentees ahead, Section Executive Committees dare not delay too long appointing committee chairmen and personnel and having them organize so that operations are in full gear when activities resume in late summer. (Those underlines are Emily Sirjane's. Those who know Emily well know she wouldn't needle anybody unless it was absolutely convenient!)

"KNOW YOUR DIRECTOR!" President Mulligan (Spectrum, May, p. 9) says: "Regional and Divisional Directors represent an excellent source of the latest information on specific Institute activities. * * Individual members should feel free to make use of this source on any Institute matter."

Each Section is currently being furnished a short biography, with photo, of the Regional Director, for purposes flowing out of better acquaintance with members.

This man travels a Two-Way Street. He carries tidings both ways. Use the help he is eager to lend.

COMMITTEE-CHAIRMAN APPOINTEES. Incoming Section chairmen are requested to furnish IEEE the names of chairmen of Section committees as soon as appointed. Questionnaires have been provided for convenience in reporting.

This is in addition to information for the Organization Roster. (See item under Challenges and Opportunities, above.)

SECTION WORKSHOPS—GUNG-HO. Recently held: Charlottesville, Va., Chicago, Houston (Regions 3, 4, 5). . . Coming up: San Francisco at Wescon, Region 6. . . One at Baltimore, June 10, on Group Chapters. . . Notes from the big March Convention workshop have been mailed to all Sections.

SECTION MANUALS. Incoming Section chairmen are automatically provided with a rainbow of manuals (12, no less) containing guidelines for successful Section committees' operations. Utter familiarity with this material will do more for a Section officer in relation to his IEEE duties than a college education.

P. S. —A Section workshop, if you can get to one, affords a 3-dimensional opportunity to communicate as well as educate. In that, it's one-up on the manuals.

IEEE MEMBERSHIP BENEFITS. The booklet, "Membership Benefits," (see E. E. Apr., p. 6), is necessarily brief. Some of the advantages of IEEE membership can well be emphasized through supplementary items printed in the various Section, Group, and Society newsletters. To that end we include in this issue, pp. 4A-4D, a number of items ready for scissors-and-paste extraction by editors, making it convenient to use Members & Transfers Committee-suggested copy as filler, etc. Cooperation will be appreciated getting these ideas around.

LOSSES-AND-GAINS IN MEMBERSHIP. Beginning in July '71 and monthly thereafter*, Sections will receive individual data, for each grade of member separately and in total, showing active members and members-in-arrears* as of the end of each month and the preceding month. Net gain-or-loss will be the algebraic sum of additions/deletions. Additions during the month will be broken down into new elections, reinstatements, transfers to grade, and arrears-paid-up*. Deletions will show resigned, deceased, now-in-arrears*, and transfers from grade.

*Asterisked items are categories new to Institute report practice.

The entire monthly report-by-Sections is new. It should provide an incentive to



MEMBERSHIP PROMOTIONAL MATERIAL

[Adapted from Membership and Transfers Committee compilation. Arranged for use of Editors of Section, Group, and Society newsletters and bulletins, to clip and edit as space filler or information.]

"WHAT'S IN IT FOR ME?" is the real, if hidden, subject of the IEEE pamphlet carrying the prosaic title "Membership Benefits." Copies are available from Miss Emily Sirjane, IEEE, 345 East 47 Street, New York, N. Y. 10017. The booklet, containing 10 pages of text and supporting application and order forms, answers the double-barreled question: "What's in IEEE for the Member?" and "What's in it for the present nonmember?"

SOMETHING GOOD TO BE SHARED. A member of IEEE is counted with the top electrical and electronics engineers and scientists throughout the world. His contributions--technical, personal, or financial--identify him as supporting this leading transnational organization.

Invite your nonmember associate to "Get into the Swing of Things--Join IEEE." It's a natural desire for men to unite professionally in a society where the action is. Invite your engineering co-workers to "Join the Growing Team - Identify with IEEE!"

REWARDS THAT ARE PURELY PRIVATE.

Not medals. Not honors. These may come later.

Personal contacts. Lasting friendships. Within the profession but extramural - extending beyond the confines of the company you work for.

Room to breathe. Scope to expand.

Why stay cooped up?

VOLUNTEERS MAKE THE IEEE. The General Manager estimates that 25,000 volunteers "run the show." They operate in 32,000 slots on committees and boards - 16,800 in locally organized units; 8,400 in Groups and Societies; 5,400 running conferences; and 1,400 on standing committees and as representatives to other societies. In IEEE a committee assignment is the surest-fire way to come out of your read-and-listen shell. Volunteer!

SURE, YOU CAN HAVE IT BOTH WAYS. Group and Section activities converge on the IEEE member who signs up with a Group or Society. Every member is automatically assigned to a Section, and if the Section publishes a newsletter or bulletin he gets news of the Section, Subsections, Chapters, and college branches.

If he signs up with a Group, he additionally gets the newsletter and Transactions they publish. Groups hold meetings country-wide; some Groups world-wide.

Locally or farther afield, a member with dual Section/Group affiliations gets invitations to meetings wherever held. Experts speak who can answer live questions. A member can even exert influence on choice of topics by making welcomed suggestions to program chairmen.

As a member, making use of these opportunities will keep you aware of sources of information required as part of your normal work. Availability of practical information makes IEEE membership extremely worthwhile.

INCREASING PROFESSIONAL CONTACTS. Are your professional contacts too few in number for your needs on the job - or for your progress in it? Contacts can be bettered through IEEE.

Attend Section and Chapter meetings, Regional and Group conferences, the annual Conventions.

Participate in Section and Group activities as a committeeman - eventually as an officer. Accept (do better: ask for) an assignment. When you get it, do it well. Go up the ladder.

Contacts? No end. "Thousands have made it. So can you."

WIDENING ONE'S HORIZONS. One horizon beyond local meetings and the printed page are IEEE's general and specialized conferences, exhibitions, and Conventions.

Ever read a technical article and wish you could ask the author a question, personally? It happens all the time, every year, at a hundred conferences sponsored by Groups and Regions.

Here, too, are forums to report your own findings. Here you can pick up inspiration to plan a symposium in your own area.

Your IEEE membership card admits you, either at no charge or minimum charge. Where else can you learn as fast and save all that money!

VASS YOU DERE, SHARLIE? Inspection trips and exhibitions of equipment share one achievement in common - they bring a 3-dimensional sense of reality to engineering and scientific products, quite unobtainable through words and pictures alone, at meetings or on the printed page. IEEE Section meetings, conferences, and symposiums therefore often feature opportunities for members to bring back to their jobs the intimate "feel" of apparatus, systems, and instrumentation in being.

Take advantage of these trips and exhibits. It will give you the personal satisfaction of having visited these places in person. By actual contact you will thus be able to speak with the authority that goes with having seen.

SATISFACTIONS OF AUTHORSHIP. As an IEEE member, be alert to report and share new experience, new findings, either in research or operations. Have your technical evaluations tested in IEEE's world-wide crucible of achievement.

Begin in a Chapter meeting, if you will. Move in on a Section meeting. Present a paper at a Conference. Write for Transactions, Proceedings, Spectrum. Answer "Calls for Papers." Advance the technology one step further. Make life just a little better - benefitting more people.

Like a stone tossed in the pond, some ripples come back to the tosser. Sometimes they're noticed, close to home. Not only by one's fellows. By the boss. That counts, too.

YOU ARE CAPABLE--ARE YOU CONCERNED? Philip Sporn (M'20-SM'30-F'61-HM'61), in his book "Foundations of Engineering," says: "Engineering is a profession. Its members do creative work which results in things that people need or want. * * The engineer is one who is capable * * of bringing into being a product or system having for its objective the production of something vital or necessary in human society. * *

"His concern extends beyond any particular technology, and he visualizes the socio-economic or human needs and methods for satisfying them more economically and more efficiently than has been accomplished heretofore."

Yet some say engineers don't care! Has this ever been true?

DEFINING ONE'S GOALS. Asked to compare his own with IEEE's goals, one of our younger members put it this way: "To me they are identical. My highest goal, like yours--whatever be our specialties--is really socio-economic improvement through technology. The Institute's primary function is as an idea-distributor leading to that goal. The success of IEEE, therefore, depends upon people, and the facility with which we may exchange ideas in the collective pursuit of a common purpose."

TECHNICAL OBSOLESCENCE.

It can happen here!

Subscription to the pertinent IEEE publications, audio-visual aids, and courses provides broad interdisciplinary coverage and continual identification with a changing technology.

Educational upgrading is a "must" in any member's continuing fight against personal technical obsolescence. It is the key to professional advancement.

SELF-IMPROVEMENT is a primary motivation within IEEE. It is needed to keep a job interesting, challenging, and satisfying. Without these happy and progressive factors, all vanishes out the window!

Every engineer needs a continuing self-improvement program to protect his investment of education, time, and money.

SELF-ANALYSIS is basic to self-improvement. Here are things to consider:

Study the state of the art and the rate of change.

Fill in gaps in education.

Build up new information as the job requires it.

Measure personal capabilities against changing requirements.

Review forgotten material.

Take a look at the 6-year half-life since graduation, and decide what it takes to make you current.

Brighten up professional contacts with others.

ENGINEERING ASSURANCE keeps engineers in demand. This phase of self-improvement comes from pooling resourcefulness with other engineers. Participation with others in IEEE is self-improvement in action; you help others help you:

To remain aware of the needs and demands in engineering.

To tailor publications and information to engineering needs.

To expand knowledge of engineering as it advances.

To maintain high proficiency throughout the profession.

To better contacts with other professions and professionals.

To keep well oiled the machinery of acknowledgments and awards.

To insist on top-level management's recognition of performance.

To regenerate creativity, and ability to solve problems.

To develop character, judgment, and understanding.

What Role, If Any, Should The Professional Society Play in Political and Economic Life of Its Members?

Harold J. Ammond, Executive Secretary

Association of Scientists and Professional Engineering Personnel

To all who survey the current employment scene on the professional level, it becomes increasingly apparent that the Engineering Profession is coming apart at the seams. Deteriorating political and economic conditions are undermining the formerly secure engineering picture, and extensive federally induced economic cutbacks have created a series of bleak developments harmful to the job security of engineers throughout the United States.

Major television networks in the Philadelphia area recently carried a story showing graduates from various engineering schools picketing at the University of Pennsylvania to focus attention on conditions existing within the engineering profession and suggesting to potential engineering graduates that they enter the more secure fields of medicine, law or accounting.

Unfortunately, restricting economic pressures have not only brought about an undercurrent of desperation in a large segment of the Engineering Industry but the blame for this situation is being misplaced and lodged on the shoulders of professional or technical societies. Engineers are suddenly raising probing questions regarding the ability of their respective professional societies to constructively alter the present assault on their economic security. One has only to attend a meeting of the IEEE or the ASME to note the preoccupation with exigency and disillusionment of the membership. Additionally many societies have been forced to cut back on their activities because large numbers of engineers have refused to pay their annual dues. Only recently the Engineers Joint Council was forced to eliminate publication of its magazine THE ENGINEER after sustaining a serious loss of revenue from dues.

Local, state and national societies are undergoing an internal upheaval and facing irreparable cleavage fostered by growing dissatisfaction among their members, but unless the direction of this attack is strikingly reversed, these same professionals will face an even greater debility in their security status.

The objective of professional and technical societies is to advance knowledge in the various areas of engineering and to recognize the contributions that individuals make to the state of the art. The general membership of societies is normally made up of owners, managers, offi-

cial of companies involved in a particular area of engineering, consultants who work in that field and engineers involved in the various sectors of the field whether it be aerospace, electronic, or mechanical engineering. In some cases, the societies also open their membership to students. Obviously then, any given society may at some time alienate one segment of its members if it takes a position which is considered objectionable by another group of members. It is inconceivable that any given professional society could become involved in a higher wage issue without incurring the dissatisfaction of its managerial or owner representative members, and without losing financial and active support from this very influential group. One has only to examine the Board of Directors of the Engineers Joint Council to note the influential representatives from the management community (Vice President from IT&T, United Aircraft and Boeing) serving on that Board, as well as those who head the important committees within any society.

Moreover, engineers are badly fractionalized from a political point of view. Nowhere, on local, state or federal levels has it been found that a professional or technical society or group of engineers has effected the election of any candidate for political office.

Very limited representation by sympathetic legislators has resulted in a lack of progress on local, state or federal levels. No major progress can be reported on such problems as portable pensions for engineers, or for tax relief for re-training costs. However, it is encouraging to note the merging of the Institute of Electronic and Electrical Engineers (IEEE) and The National Society of Professional Engineers (NSPE) in the area of research and lobbying activities in Washington. Nevertheless, these two groups are but a fraction of the entire engineering and scientific population throughout the United States. A more potent force would be established if a single political representative were supported by every professional and technical society. Currently each organization is too weak in numbers to effect any type of significant change for the total profession. While complete unanimity of opinion cannot be expected, a common denominator on many issues must be found in order to effect constructive change beneficial to the Engineering Profession.

Professional and technical societies are

being pressured by their membership to become involved in establishing wage standards, layoff procedures, severance pay programs and other economic issues. Demanding the establishment by professional or technical societies of codes of ethics, salary standards, hiring or layoff procedures or severance programs is a meaningless gesture simply because these standards are unenforceable and unilaterally established. Such action can be likened to passing a law without having a police force or court system for enforcement purposes. If a salary standard were established as a simple guideline for both industry and working engineers, and its unenforceability is recognized then no harm is done. As a point of law however, should any society or any local chapter of a society seek to enforce the standard they would subsequently be in violation of either a federal or state law because it is illegal to assume representation of a group of employees, unless legal recognition has been obtained by the society as their duly authorized representative. Existing today are laws on both the federal and state levels for those seeking to obtain legal recognition. Recognition may be granted voluntarily by a company, or by secret election conducted through state or federal agencies whose responsibility it is to certify duly authorized representatives of employees. If a society seeks enforcement of its standards without proper certification the filing of an unfair labor practice charge against the society and its leadership by management may result. If a successful resolution to the problems confronting the vast majority of employed engineers in the United States is not possible in direct meetings by the individual and his management then other legal courses of action must be explored. Any individual or group of individuals may seek out an attorney in their community who specializes in labor relations, or go directly to the National Labor Relations Board itself for advice and information regarding certification as representatives. Only then can industrially employed engineers and scientists seek a resolution to the problems confronting them and their profession today. The professional and technical society has a very important role to play in the life of an engineer and it should be supported with dues and participation. But these same organizations should not be used as scapegoat because of their inability to solve problems which in effect were never their responsibility to resolve originally.

Once the engineer has accepted the role of his society, he may begin to venture further into the possibility of joining with or becoming a legally certified unit which would provide him with the proper legal tools to tip the economic and job scales in his favor.



IEEE SECTION PROGRAM FOR RECENT IEEE STUDENT GRADUATES

A major source of new members in the IEEE and in the Section comes from thousands of Student members who graduate each year, transferring to the next level of membership. However, a substantial percentage of these transferees fail to continue membership within the first three years following graduation, and this can be due to the fact that very little attention is given to this category of membership.

The Section is in the position of providing the member-to-member exchange which is so vital in an organization having the magnitude of the IEEE. The attention the Sections give to the new graduate, and the degree of his involvement in the local activities and in the Groups and Societies will determine in large measure his decision about retaining membership in the Section and in the IEEE.

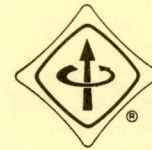
OBJECTIVES OF PROGRAM

1. To establish and maintain contact with every recent graduate following graduation.
2. To extend a personal welcome from the Section to join with his engineering colleagues in the activities of the local Section.
3. To bring or accompany him to the first meeting; to introduce him to engineering associates, to make him feel wanted in the Section and in the Institute.
4. To invite him to contribute his talents by serving on one or more of the Section committees.

IMPLEMENTATION OF PROGRAM

1. In August each year the Section Chairman will receive from IEEE Headquarters a set of cards, in two parts, identifying the recent graduates now residing in the Section territory.
2. The Section Chairman to request the Membership and Transfers Committee (M&T) to personally contact each new graduate.
3. Section M & T Committee to take the following actions:
 - (1) Insert name of Committeeman, with address and telephone number, on the card.

- (2) Contact the new graduate personally, extending a welcome to the Section, making plans for him to provide the information requested on the card.
- (3) Arrange to meet the new graduate at the next Section meeting, where he can be introduced to other members.
- (4) Collect the completed card from the recent graduate; return Part B promptly to IEEE Headquarters.
- (5) Take appropriate action, through the Section Chairman, on the information furnished by the new graduate.
- (6) Follow-up in one month, and again, if necessary, to ascertain that the new graduate is interested and has become involved in his Institute as a contributing member.



DOMESTIC AFFINITY - GROUP FLIGHTS

The flight information shown here has been provided by one of the major airlines. It lists all pairs of cities on their network for which 20% reduced fares are available. Other major regularly scheduled airlines also provide reductions of 20% for affinity groups travelling between certain U. S. cities. The local offices of these airlines would be glad to provide equivalent information concerning destinations they serve.

The basic conditions pertaining to the 20% fare reduction are as follows:

- Twenty-five (25) or more persons in a group having demonstrable affinity (IEEE membership) for at least six (6) months prior to departure.
- Group travel necessary for outward journey, but individual travel on the same airline is allowed for return trip.
- No minimum stay required.
- No stopovers permitted.
- Application must be made to airline sales office 21 days prior to departure.

Reductions of 33% on round-trip and 20% one-way are offered by some regional airlines, e.g. Allegheny and Ozark. Conditions are similar, except that only ten (10) people are needed to form a group.

Sections, Group Chapters, and other organized units within IEEE could benefit from these reduced fares when attending major conferences such as WESCON, NEC, NEREM and the IEEE International Convention. The Section or Group Chapter willing to organize and publicize this program could offer a service to their members and stimulate unit activities.

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IEEE IS NOT INVOLVED IN ANY WAY WITH FLIGHT ARRANGEMENTS. ALL COMMUNICATION SHOULD BE MADE DIRECTLY WITH THE AIRLINE SALES OFFICE.

GROUP FLIGHT FARES

	<u>TOTAL FARE</u> (Tax Included)
<u>AKRON, OHIO - to:</u>	
Baltimore, Maryland	\$ 51.00
Chicago, Illinois	52.00
Washington, D. C.	51.00
<u>ATLANTA, GEORGIA - to:</u>	
Las Vegas, Nevada	211.00
Los Angeles, California	211.00
Miami, Florida	75.00
New York, New York	92.00
San Diego, California	211.00
San Francisco, California	229.00
Tampa, Florida	59.00
<u>BALTIMORE, MARYLAND - to:</u>	
Chicago, Illinois	81.00
Cleveland, Ohio	51.00
Columbus, Ohio	52.00
Dayton, Ohio	61.00
Denver, Colorado	169.00
Detroit, Michigan	59.00
Hartford, Connecticut	49.00
Kansas City, Missouri	118.00
Las Vegas, Nevada	224.00
Los Angeles, California	248.00
Milwaukee, Wisconsin	81.00
New York, New York	37.00
Pittsburgh, Pennsylvania	39.00
Sacramento, California	248.00
San Diego, California	248.00
San Francisco, California	248.00
<u>BIRMINGHAM, ALABAMA - to:</u>	
Los Angeles, California	198.00
New York, New York	102.00
San Diego, California	198.00
San Francisco, California	218.00
<u>BOSTON, MASSACHUSETTS - to:</u>	
Chicago, Illinois	108.00
Denver, Colorado	195.00
Detroit, Michigan	85.00
Kansas City, Missouri	147.00
Las Vegas, Nevada	250.00
Los Angeles, California	271.00
New York, New York	37.00
Sacramento, California	271.00
<u>BUFFALO, NEW YORK - to:</u>	
Los Angeles, California	236.00
San Diego, California	236.00
<u>CHARLOTTE, NORTH CAROLINA - to:</u>	
Los Angeles, California	227.00
San Diego, California	227.00
San Francisco, California	245.00
<u>CHICAGO, ILLINOIS - to:</u>	
Cleveland, Ohio	52.00
Columbus, Ohio	49.00
Dayton, Ohio	42.00

	<u>TOTAL FARE</u> (Tax Included)
<u>CHICAGO, ILLINOIS - to: (cont'd)</u>	
Denver, Colorado	\$ 113.00
Detroit, Michigan	42.00
Hartford, Connecticut	99.00
Las Vegas, Nevada	172.00
Los Angeles, California	196.00
New York, New York	94.00
Philadelphia, Pennsylvania	89.00
Pittsburgh, Pennsylvania	61.00
Sacramento, California	196.00
San Diego, California	196.00
San Francisco, California	196.00
Washington, D. C.	81.00
<u>CLEVELAND, OHIO - to:</u>	
Denver, Colorado	143.00
Hartford, Connecticut	68.00
Las Vegas, Nevada	199.00
Los Angeles, California	223.00
New York, New York	63.00
Sacramento, California	223.00
San Diego, California	223.00
San Francisco, California	223.00
Washington, D. C.	51.00
<u>COLUMBUS, OHIO - to:</u>	
Denver, Colorado	141.00
Hartford, Connecticut	77.00
Las Vegas, Nevada	196.00
Los Angeles, California	214.00
New York, New York	68.00
Sacramento, California	227.00
San Diego, California	214.00
San Francisco, California	227.00
Washington, D. C.	52.00
<u>DAYTON, OHIO - to:</u>	
Denver, Colorado	136.00
Las Vegas, Nevada	190.00
Los Angeles, California	209.00
New York, New York	76.00
Sacramento, California	220.00
San Francisco, California	220.00
Washington, D. C.	61.00
<u>DENVER, COLORADO - to:</u>	
Las Vegas, Nevada	85.00
New York, New York	181.00
Philadelphia, Pennsylvania	177.00
Pittsburgh, Pennsylvania	153.00
Washington, D. C.	169.00
<u>DETROIT, MICHIGAN - to:</u>	
Hartford, Connecticut	76.00
Kansas City, Missouri	86.00
Las Vegas, Nevada	195.00
Los Angeles, California	217.00
New York, New York	70.00
Philadelphia, Pennsylvania	67.00
Sacramento, California	217.00
San Diego, California	217.00
San Francisco, California	217.00
Washington, D. C.	59.00

GROUP FLIGHT FARES

	<u>TOTAL FARE</u> (Tax Included)
<u>GREENSBORO, NORTH CAROLINA - to:</u>	
Los Angeles, California	\$ 232.00
San Diego, California	232.00
San Francisco, California	250.00
<u>HARTFORD, CONNECTICUT - to:</u>	
Las Vegas, Nevada	242.00
Los Angeles, California	264.00
Sacramento, California	264.00
San Diego, California	264.00
Washington, D. C.	49.00
<u>JACKSONVILLE, FLORIDA - to:</u>	
Las Vegas, Nevada	299.00
Los Angeles, California	229.00
San Diego, California	229.00
San Francisco, California	251.00
<u>KANSAS CITY, MISSOURI - to:</u>	
Las Vegas, Nevada	138.00
Los Angeles, California	159.00
New York, New York	132.00
Philadelphia, Pennsylvania	126.00
San Francisco, California	171.00
Washington, D. C.	118.00
<u>KNOXVILLE, TENNESSEE - to:</u>	
Los Angeles, California	211.00
San Diego, California	211.00
San Francisco, California	227.00
<u>LAS VEGAS, NEVADA - to:</u>	
Miami, Florida	246.00
New York, New York	236.00
Philadelphia, Pennsylvania	232.00
Pittsburgh, Pennsylvania	209.00
Tampa, Florida	229.00
Washington, D. C.	224.00
West Palm Beach, Florida	245.00
<u>LOS ANGELES, CALIFORNIA - to:</u>	
Memphis, Tennessee	180.00
Miami, Florida	246.00
New York, New York	261.00
Philadelphia, Pennsylvania	254.00
Pittsburgh, Pennsylvania	232.00
Raleigh/Durham, North Carolina	236.00
Rochester, New York	242.00
Tampa, Florida	229.00
Washington, D. C.	248.00
West Palm Beach, Florida	245.00
<u>MEMPHIS, TENNESSEE - to:</u>	
San Diego, California	180.00
San Francisco, California	198.00
<u>MIAMI, FLORIDA - to:</u>	
San Diego, California	246.00
San Francisco, California	268.00
Tampa, Florida	35.00

	<u>TOTAL FARE</u> (Tax Included)
<u>MILWAUKEE, WISCONSIN - to:</u>	
New York, New York	\$ 94.00
Philadelphia, Pennsylvania	92.00
Washington, D. C.	81.00
<u>NEW YORK CITY, NEW YORK - to:</u>	
Philadelphia, Pennsylvania	25.00
Pittsburgh, Pennsylvania	53.00
Sacramento, California	261.00
San Diego, California	261.00
San Francisco, California	261.00
Washington, D. C.	40.00
<u>PHILADELPHIA, PENNSYLVANIA - to:</u>	
Pittsburgh, Pennsylvania	47.00
Sacramento, California	254.00
San Diego, California	254.00
San Francisco, California	254.00
Washington, D. C.	32.00
<u>PITTSBURGH, PENNSYLVANIA - to:</u>	
Sacramento, California	231.00
San Diego, California	231.00
San Francisco, California	231.00
Washington, D. C.	39.00
<u>RALEIGH/DURHAM, NORTH CAROLINA - to:</u>	
San Diego, California	236.00
<u>ROCHESTER, NEW YORK - to:</u>	
San Diego, California	242.00
<u>SACRAMENTO, CALIFORNIA - to:</u>	
Washington, D. C.	248.00
<u>SAN DIEGO, CALIFORNIA - to:</u>	
Tampa, Florida	229.00
Washington, D. C.	248.00
West Palm Beach, Florida	245.00
<u>SAN FRANCISCO, CALIFORNIA - to:</u>	
Tampa, Florida	251.00
Washington, D. C.	248.00
West Palm Beach, Florida	266.00

ALL FARES SUBJECT TO CHANGE WITHOUT NOTICE.

make gains and prevent losses by revealing continuously just how the Section stands. Interpretive material will be issued to Regional Directors in July.

IDEAS FOR IMPROVING SECTION MEETINGS, once an E.E. "exclusive," are being promulgated in two colors in the "Inside IEEE" part of Spectrum--e.g., Ron Jurgen on Syracuse, May, p. 9. Don't overlook this source. Spectrum has 40 times E.E.'s circulation. Every IEEE member on the face of the earth gets it. Referring, deferring, E.E. itself will read it, puff with pride. "That's my boy!"

ESTABLISHMENT OF CHAPTERS. Group Chapters in Sections provide the medium to exchange ideas with others in your area with interests common to your own; to draw speakers from industry and the academic world to bring you the latest in technical developments; to present courses by experts from your Group Chapter and from industry.

How to proceed to form a Chapter is covered in Bylaw 406. There is a manual distributed and available on Group Chapters. (Copy, Emily Sirjane)

The Section must approve a Chapter prior to establishment. The Membership and Transfers Committee is "bullish" on Chapters--Their pitch is: "Help Yourself to Some of the Action! Form a Group Chapter." With proper continuing local leadership, Chapters last. A few fall by the wayside. Currently there are 505 in operation.

RETAINING GRADUATES AFTER UPGRADING. Upon graduation, Student members are automatically upgraded (Bylaw 105.6, b, c.). Simultaneously most of them move from school into industry, government, or teaching. This migration may introduce a "windfall" into almost any Section, in the form of newly-created Members and new Associates who invite acceptance and nurture as though recruited locally "the hard way."

The M&T Committee this year has embarked upon an impressive "IEEE Section Program for Recent IEEE Student Graduates." Since there is no one spot in our

operation where the Institute permanently stands to gain or lose so much as by the proper or improper transfer to full stature of these sometime-Students, E.E. is pleased to reproduce the program in full on pp. 4G-4H, as general information to all readers and as one more jog-of-the-elbow to M&T committees in the Sections.

"FOR YOUR INFORMATION"

STAFF SHIFT TO AID PRESIDENT. Esmi Bidstrup has been appointed Special Assistant to the President to help cope with the work load associated with Dr. Mulligan's IEEE duties.

Esmi's place on Charlie Stewart's staff as Administrative Assistant to RAB will be filled by Joanne Collins.

DOMESTIC AFFINITY-GROUP FLIGHTS. Affinity-group flights overseas through NCET, with savings in fares to IEEE members, were described in March Spectrum, p. 127. (See E.E., Apr., p. 7.) Domestic affinity-group flights are also available. Representative tariffs will be found on pp. 4I-4K of this issue of E.E. Note that members' dealings are direct with the airline chosen.

MEMBERS TRAVELING OVERSEAS. Officers of overseas Sections have asked E.E. to request members to make contact with Emily Sirjane at IEEE if they plan to travel outside U. S. and Canada, so that names and addresses of Section officers abroad can be furnished. This gesture of goodwill is hailed and reciprocated. We are all for togetherness. Bon voyage! Happy landings!

WHO GETS E.E.? Mailings go to the "working contingent" on volunteer assignments. Distribution is to Directors; members of all standing committees and boards listed in Bylaw 304.2. Under Awards Board; its committees. IEEE representatives to outside organizations. JTAC. Under TAB: Group Administrative Committees, Editors; members of standing committees; chairmen of conferences. In the Regions: Regional assistants, Council officers. In the Sections: chairmen, vice

chairmen, secretaries, treasurers; Section offices; Subsection chairmen, secretaries, treasurers; Group Chapter chairmen; IEEE counselors; Section Editors; publicity chairmen. IEEE staff, active and retired. Past Presidents. Retired officers (first year, upon request only).

Until now we have been sending Section Chairmen 3 extra copies for their convenience in forwarding marked copies to others for action or information. Complaints have been received that the 3 extras are wasted, so they are being discontinued, beginning with this issue.

In E. E. Apr. '70, p. 6 we invited large Sections to say they don't get enough copies. No takers. We renew the invitation to any unit. Speak up—Ed.

INTERNAL COMMUNICATION. An outfit the size of IEEE functions only when many channels of communication are set up and used. Make full use of informal channels, correspondence, telephone, to create common awareness of things presently in progress. What you don't say the other fellow can't guess.

ONE FOR SCOTLAND YARD. According to Region 8 (European) Newsletter, 20-doz. neckties worth \$48-US/doz. retail, with the

IEEE emblem woven right into them, were highjacked in transit in the Manchester-Guildford area recently. BAKER STREET combed Moriarty's known fences but turned up nothing but battered tie-clasps. THE YARD has not discounted a tip-off, smelling more in Flower Walk than flowers. INTERPOL wants to know who turns up at which IEEE where and with what.

Alerting all Sections, Regions 1-10. Gold on maroon, navy blue, green, grey, black. \$4 ea. Natty. (Spectrum, Feb. '69, p. 99)

WELCOME ABOARD!

New Group Chapters in Sections:

Portland Section: Industry and General Applications Group Chapter.

Tokyo Section: Circuit Theory Group Chapter.

Toronto Section: Systems, Man, and Cybernetics Group Chapter.

Staff: Joanne Collins, Administrative Assistant, on Charlie Stewart's staff. She will assist with the Regional Activities Board and RAB Policy & Planning Committee, among other duties.

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Centerfold pages:

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White - Clip-sheet for Editors	4A-4D
Blue - Ammond, Societies' Roles	4E-4F
Pink - Sections & ex-Students	4G-4H
Ivory - Group Flights	4I-4L
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