

STUDENT BRANCHES DEPT.

ELECTRICAL ENGINEERING®

THE SENATE, in September, passed a pension reform bill of major importance to engineers. The measure included all three of the amendments proposed by the engineers Joint Pension Committee (chaired by IEEE's Richard Backe). These amendments are: (1) a tax provision to enable engineering societies to set up their own multi-employer engineers-only immediately-vested pension plans; (2) a provision for amendment of government procurement regulations to protect the pension rights of highly mobile engineers; and (3) a provision for a special study of the pension problems of engineers and other highly-mobile employees and recommendations to the Congress for further improvements.

The focus now shifts to the House, and after the House acts, to the Senate-House conference on the bill. According to IEEE Special Counsel Frank Cummings, the immediate objective is to urge the House to act on this bill as soon as possible—this year. The Chairman of the Ways and Means Committee, Wilbur Mills, is still recovering from surgery, and the Acting Chairman, Al Ullman, seems to be the key man for the moment.

You are urged to write your Congressman to let him know that you are concerned with pension reform. (See "Letterwriter's Guide to Congress," E.E., June, pp. 4S-4V.) Express your concern that any pension legislation include the three amendments proposed by the engineers Joint Pension Committee. Your letters can get the message through to Congress that engineers are not apathetic, but will carefully watch how they vote on matters affecting them.

TOP-SIDE DEVELOPMENTS

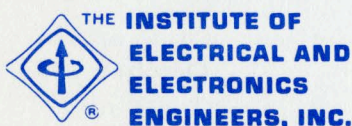
FOUR CHAIRMAN for 1974 were approved by the Board of Directors (BofD). They

are: Awards Board—Marvin Chodorow; Fellows Committee—Nathan Cohn; Live Member Fund Committee—Arthur V. Loughren; and Tellers Committee—R. J. Borrman. The Executive Committee (ExecCom) approved three standing committee chairmen: Donald Brereton—Admission and Advancement; F. E. Terman—History; and E. C. Hall, Jr.—Membership and Transfers. (See Bylaw 304.2) Congratulations to them all!

FELLOW COMMITTEE is submitting a list of names for elevation to Fellow grade to the BofD for its approval. Those selected will be announced in December. The Committee is now requesting nominations for 1974. A new Fellow nomination kit has been sent to all IEEE organizational units. Included in the kit is the "Guide for IEEE Fellow Grade Nominations." This information should be read carefully and the instructions should be followed exactly. (Additional kits available, write Emily Sirjane)

BYLAW CHANGES approved by the BofD:

- 109.5, 110.1 - Reduced rates for unemployed members were continued through 1974.
- 105.2 - Amended to clarify that Fellow candidates must be a Senior Member at the time their nomination is submitted.
- 311.13 - United States Activities Committee (USAC) which shall consist of the six U.S. Regional Directors and three of the Divisional Directors (appointed by the Vice President-Technical Activities). USAC shall be responsible for recommending policies and implementing programs intended to serve U.S. members and supported by funds from a special Regional assessment.
- 311.18 - Membership and Transfers Committee to be redesigned to include the Regional Activities Board (RAB) Student



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Martin Gitten, Editor

Activities Chairman and one representative from each of the Divisions.

304.3, 311.13 - amended to allow non-IEEE members on Committees if specifically granted in the Bylaws. Special permission was given to the Public Relations Advisory Committee because of the expertise required of its committee members.

NEW DIRECTORS, elected by the membership, will be invited to a Director's orientation meeting on November 27th. As part of the workshop, they will attend the November 29-30 BofD meeting as observers.

PRODS AND OPPORTUNITIES

POPOV SOCIETY EXCHANGE PLANS call for an IEEE delegation to attend the Moscow conference in May or June '74. Members of Division IV (see E.E., June, p. 4P), who would be interested in participating, are urged to contact John Kinn or Audrey L. van Dort (at IEEE Headquarters) for further information. Applicants are required to provide their own funding for the trip which will last about two weeks. (See SPECTRUM, Sept., p. 70.)

NOMINATIONS FOR PRESIDENT and Vice President, 1975, are being requested. Nominees for these offices must be Senior Members or Fellows. The Nominations and Appointments Committee has provided two copies of the form to be used in submitting recommendations. They are reprinted on page 4A. The deadline for returning the completed nomination is February 1, 1974. (Extra forms, Emily Sirjane)

NATIONAL ENGINEERS WEEK, Feb. 17-23, is a wonderful time to make people aware of your Section activities. Now is the time to begin planning special meetings or exhibits to coincide with this week. You may wish to schedule your own affair or

E.E. is sent without cost beyond dues to officers of IEEE Boards, Committees; Divisions, Societies, Groups, Conferences; Regions, Councils, Sections, Subsections; Chapters, and Branches. Second-class postage is paid at New York, N. Y.

work in cooperation with other engineering societies. This year's theme is "Engineering... Our Greatest Energy Resource." A list of promotional material, available for purchase from NSPE (who sponsors the event), will be mailed to all Section Chairmen.

USAC will consider funding local technical and educational projects of interest to U.S. members. Forms and information on how to apply for assistance is available from your Regional and Divisional Directors. The funds, provided by a special assessment to members of Regions 1-6, are available for U.S. projects only.

TOOLS AND AIDS

ORGANIZATIONAL ROSTER supplements are being mailed in October. It's a valuable guide and should be kept readily accessible. It lists IEEE areas, Councils, Sections, Subsections, and Chapters, many of which changed personnel at mid year. (Copies, Emily Sirjane)

MANPOWER PLANNING COMMITTEE has issued a report on the employment situation in the U.S. Regions. This report will be the base for a continuing effort by the IEEE Manpower Committee. It is intended that these reports will enable reasonable judgements and decisions to be made in assessing an individual's current and future job directions. They will also be helpful to career planning at the high school and college levels. A summary of this report will be published in SPECTRUM. The entire report is available for purchase. (Cost: members-\$12.50; non-members-\$25)

CAREER ACTION PLANNING (CAP) manual is also available from IEEE. Developed by General Electric, CAP is a self-administered program to help you evaluate your present situation and gives suggestions for additional reading. (Cost:

\$30 for one copy, \$25 per copy if five or more are ordered)

PUBLIC AFFAIRS INVOLVEMENT WORKSHOP will be held in Philadelphia on November 2. This is the second of a series of workshops co-sponsored by IEEE and ten other engineering societies. Those attending learn how to improve their Section's image, stimulate member interest, and develop new member growth while performing a real community service. The one-day workshops are being scheduled at various locations throughout the United States. (See E.E., June, p. 2.) A \$10 Registration Fee will be charged at the door (includes lunch).

DISCOUNTS FOR PURCHASING various IEEE publications has been printed on page 4G. The schedule includes member as well as bulk rate discounts.

REGION AND SECTION NEWS

MEMBERSHIP FIGURES are good but that is no reason to stop working. Despite the dues increase, the member retention rate is higher than last year. However, the Membership and Transfer (M&T) Chairmen should not rest on their laurels. In September, a list was mailed to each Section listing those people who have not paid their 1973 dues or are late in paying their second installment. A concerted member retention drive, before the end of the year, could mean a record membership for the Institute and more money rebated to the Sections for their use.

REGIONAL NEWSLETTERS are now published in SPECTRUM. Make sure your Section is providing the information, about what you are doing, to the Regional editor. Check E.E., June, p. 4E for the SPECTRUM deadlines. (Additional copies, Barbara Brown)

STUDENT NEWS

ANNUAL REPORT and Financial Statement forms will be mailed on November 15 to

every Student Branch. Watch for them and make sure they are completed and returned to Headquarters by February first. You must have the reports in to receive your rebate check.

STUDENT ACTIVITY COMMITTEE (SAC) will meet on November 10-12 in Melbourne, Florida. At that time, IEEE's student programs will be reviewed and evaluated. SAC will make recommendations for any needed changes. If you have any suggestions, pass them on to your Regional SAC or SPPC (Student Policy & Planning Committee) member prior to the November meeting.

WESCON was the site of the Region 6 Student Papers Competition. This was the first time that the papers were presented as a regular WESCON program session. The winner was Robert J. Grow from the University of Utah. The prize, provided by the Life Member Fund, is \$200, an HP 45 calculator, and a plaque. Second prize winner of \$100 was Robert A. Greyell, University of Washington. Grant Cornell, California State University at San Francisco, won the \$50 third prize.

VINCENT BENDIX AWARD applications must be received by December 1. Up to \$500 for each accepted project is available to fund undergraduate Student Branch projects. The criteria for winning will be imagination and the ability to strengthen the professional development of individual members as well as the Branch. Further information and abstracts of previous winning proposals are available by writing Bob Asdal (See E.E., June, p. 3)

PUB NEWS

SPECIAL SPECTRUM editions are planned for January and February. The first issue of 1974 will review the technology advancements of the preceding year. The articles will not only cover the future applications of technology, but its usefulness in solving technical and social problems. A special computer issue will be published in February. Its theme will be key computer design

problems, but it will also try to orient the entire readership on the state of the computer art and its possible future directions.

LASER DEVICES and Applications is the latest publication in the IEEE PRESS Selected Reprint Series. It is designed to serve both as a tutorial introduction to lasers and their uses and as a convenient reference source for those more familiar with the topic. The reprint was edited by Ivan Kaminow of Bell Laboratories and Anthony Siegman of Stanford University (Price: clothbound \$14.95 for non-members; clothbound \$11.20 and paperbound \$7.50 for IEEE members)

HONORS

WERC (World Environment and Resources Council) elected Dr. Harold Chestnut to serve on the Board of Directors in the post of Past President. While the picture shows the founding meeting in New York



held this September, Dr. Chestnut had been Chairman of the Provisional Committee. This committee laid the groundwork for creating this new organization.

IEEE WAS COMMENDED by Dr. Seville Chapman, Director of the New York State Assembly's Scientific Staff. In a letter to President Chestnut he said, "I believe that the IEEE and you as its President deserve much credit for bringing the seriousness of the energy situation to the forefront of the (N. Y.) Assembly's attention. In my view, the Institute has distinguished

itself by being the first professional scientific society to provide direct unbiased inputs to the State legislative process."

Members of IEEE and two N. Y. State Assembly Committees had met earlier this year.

DR. BRUCE BARROW was appointed as IEEE representative to the United Nations Economic and Social Council (ECOSOC). IEEE was allowed to participate on the Council as a non-governmental organization accredited in technical consultative status. (See E. E., June, p. 2)

CONVENTION NEWS

MANAGEMENT FOR WESCON will be provided by a new, non-profit corporation. Electrical and Electronics Exhibitions, Inc. (EEEE) has been incorporated in California. Members of the new corporation include the IEEE San Francisco Section and Los Angeles Council. Invitation for active corporate participation in EEEI has been extended to the California chapters of the Electronic Representatives Association (ERA).

MARK YOUR CALENDARS. The dates for WESCON '74 have been moved up to September 10-13. It will be held at the Los Angeles Convention Center.

ELECTRONIC SECURITY SYSTEMS seminar had over 260 engineering, law enforcement and security directors in attendance. The 110 page Record of this September meeting, containing many of the papers, is available from the IEEE Order Department. (Cost: members, \$11.25; non-members, \$15.)

IEEE INTERCON '74 will be "Getting Down to Business" on March 26-29. The exhibition will remain at the New York Coliseum though Convention headquarters and the technical sessions will be at the Statler Hilton Hotel. According to IEEE INTERCON Exposition Director Frederick T. Van Veen, the 1974 theme reflects the fact "that the electronics industries are in the



RECOMMENDED NOMINEE FOR IEEE SERVICE

NOMINEE RECOMMENDED FOR: (indicate office, committee, board)

Before filling in, please read Guidelines on reverse side.

NOMINEE _____
 First Name _____ Middle Initial(s) _____ Last Name _____

MAILING ADDRESS _____

BUSINESS AFFILIATION _____
 Name of Company _____

 Company Address _____ Telephone Number _____

 Title or Position in Company _____

Indicate present type of work: research, development, sales, teaching, etc. _____

IEEE RECORD: Present Membership Grade _____

*Offices Held (with dates) _____

*Medals, Prizes, Awards _____

Other _____

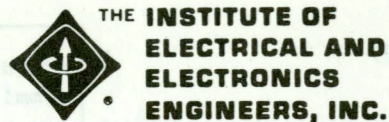
* If available to nominator.

OTHER INSTITUTE AND SOCIETY MEMBERSHIPS AND GRADES _____

COMMENTS BY NOMINATOR: Give an outline of the nominee's specific qualifications for the nomination or appointment here (use separate sheet if necessary).

 Date _____ Name of Nominator _____

 Telephone Number _____ Address _____



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

GUIDELINES FOR RECOMMENDING NOMINEES FOR SERVICE TO THE IEEE

This form shall be used in submitting the names of nominees to be considered for the elective offices of the IEEE (President and Vice-President) and for recommending appointments to the IEEE Committees and Boards. The completed form shall be mailed to the Staff Secretary of the Nominations and Appointments Committee at IEEE, 345 East 47th Street, New York, New York 10017.

The general qualifications for service to IEEE are not different from those in any position of responsibility and trust; competence, experience, willingness to take on the task, availability of time to participate, enthusiasm, and vigor. In the absence of such qualities, it is unwise to recommend a candidate merely as a reward for past service. In fact, if past service indicates that the candidate does not have the competence suitable to the task, that member should not be proposed.

Competence implies knowledge and ability to serve creatively and actively, not merely passively. The responsibilities of the IEEE Directors and the tasks of the various Standing Committees and Boards are described in the IEEE Bylaws, and these should be consulted if the nominator is not certain of the tasks to be performed. Two types of competence are involved, technical and administrative. Few candidates possess both in equal measure, but every nominee should be strong in at least one of these, depending on the task to be performed. The technical tasks require knowledge of one or more engineering or scientific fields and the ability to make sound judgments. Administrative tasks involve the judgment of people and organizational operations, and the ability to develop appropriate Institute policies and objectives.

In judging candidates on the basis of experience, prior work in Institute affairs is, of course, important but should not outweigh ability. Since new vitality must be brought into the IEEE organization, equivalent experience outside the Institute (as in other organizations, or in connection with the candidate's professional employment) should be taken into account. In many cases a candidate having no experience bearing specifically on the task may be suitable if highly competent, since he or she will soon "learn the ropes."

Willingness to serve is, of course, essential. There is no rule against a nominee being consulted by the nominator to ascertain this. However, since candidates are proposed from many sources, the Executive Committee and Board may have more candidates than there are open positions. When consulting nominees, therefore, it should be made clear that they cannot be assured of appointment.

Availability of time to participate is usually an important consideration in the candidate's willingness to serve. Committee service is so vital to the welfare of the Institute that most industrial, academic and governmental organizations recognize its importance and the comparatively small time required (compared with the working year) can be justified. A perfect attendance record at Committee meetings is seldom achieved, even by the Chairman. Moreover, specially gifted Committee workers can contribute far more ideas and wisdom in a few meetings than does the less able member who makes attendance a fetish.

Enthusiasm, vigor and creativity are, we believe, among the most important considerations. One of the troubles experienced by all professional societies is the tendency to populate committees with senior statesmen who, however distinguished, are out of touch with present challenges and opportunities. Electrical and electronics engineering is a fast-moving profession, and the Institute needs a continual infusion of new ideas. Much of this must come from younger members, although chronological age is not necessarily an indicator of a youthful attitude of mind, nor of current involvement in the affairs of the profession.



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(Editor's note: Many members are not familiar with the functions of the various IEEE committees. In this issue, E.E. is reporting on one of them--the Finance Advisory Committee. It is hoped that this report will make you more aware of their purpose and their accomplishments-to-date.)

THE FINANCE ADVISORY COMMITTEE

The Finance Advisory Committee was formed in 1973 to relieve some of the burden placed upon the Executive Committee in dealing with the preparation of detailed budgets and cost studies. The Committee is comprised of nine voting members and two staff coordinators. Each voting member is responsible for the projects within one of the individual program cost centers as follows:

1. Publishing
2. Educational Activities
3. Technical Activities including Groups and Societies
4. Field Services
5. Institute Affairs
6. IEEE INTERCON
7. General Services and Corporate Activities
8. Special Regional Assessments
9. Special Long Range Problems and Investments

For the first time in its history, the IEEE is budgeting and reporting monthly on a project basis rather than along the conventional departmental lines. This method has provided far greater insight into the costs of specific projects. It has also provided the Executive Committee with the detailed information it required to properly evaluate the cost of services and Institute activities. Interest in this reporting method has been expressed by several other "sister" societies, who presently continue to report expenses by department.

The first meeting of the Committee was held on March 1, 1973. During this meeting, the members were advised that this would be a strong working committee, whose members would be given tasks for completion outside of the meeting hours. The meetings were to be devoted to reviewing the information obtained and in preparing specific recommendations for consideration by the Executive Committee. Since the first meeting, two additional sessions have been held. A total of 42 action items have been assigned during these three meetings and approximately 90% of these items have been reported and acted upon. These studies and reports have ranged from in-depth studies of staff overhead costs to editorial and publishing printing methods.

Some of the more significant findings and accomplishments include:

PUBLISHING - Studies related to the "Regional" concept of SPECTRUM and the associated flash form inserts are continuing. Alternative distribution

methods are being evaluated to provide all members with prompt, but economical receipt of their core publications.

EDUCATIONAL ACTIVITIES - It is the desire of the Finance Advisory Committee to seek out new sources of revenue to relieve the constant burden placed on membership dues. With this in mind, the Educational Activities Board has prepared a study and established financial guidelines to increase their operations ten-fold within five years. They also plan to double their cash flow within three years. Joint discussions have taken place between EAB, RAB, and TAB representatives to further explore these plans.

TECHNICAL ACTIVITIES - A goal was established to reduce Group/Society publication costs by \$400,000, through lower editorial and composition methods, without a reduction in the number of pages printed. These savings have been accomplished and the related cost reductions are reflected in the 1974 budget. This major improvement could only have been accomplished through the combined efforts of the staff, the volunteer Group/Society editors, and TAB management.

FIELD SERVICES (Region, Section, and Branch Activities) - The Committee reviewed a new Section rebate formula, developed to eliminate inequities in previous methods. It was noted that there was a need for a greater study of Section funds and how they can be used to serve members. The Committee recommended that RAB issue a Policy Statement relating to the use of reserve funds, after establishing sufficient surpluses for commitments and abnormal contingencies.

INSTITUTE AFFAIRS - Concern over the rising costs associated with support of other organizations has prompted the Committee to make strong recommendations to reduce our financial support in this area.

IEEE INTERCON - To gain an insight into the financial results of IEEE INTERCON operations and individual technical conferences, a five year comparative report was prepared. The findings have been forwarded to the responsible people managing IEEE INTERCON to assist them in planning future operations.

GENERAL SERVICES and CORPORATE ACTIVITIES - The overhead costs of IEEE Staff was examined in detail to ascertain, in keeping with good business practice, if they were reasonable, and did not represent any hidden charges. The costs were found to be typical of other firms and it was noted that these costs were lower than many other firms examined. In summary, the IEEE Headquarters overhead costs appeared reasonable and are distributed and detailed in a business like manner.

SPECIAL REGIONAL ASSESSMENTS - Although most of this activity is left to USAC, close cooperation is maintained for possible development

of projects either with Special Assessment or General Institute funds whichever is proper. There is a strong desire on the part of all concerned to monitor the use of these special funds to insure their proper application to projects which meet the desires of the members.

BUDGETS, SPECIAL LONG RANGE PROBLEMS and INVESTMENTS - The reports on these areas are principally for the advice and guidance of members of the Finance Advisory Committee, of the Executive Committee, and of the Board of Directors in planning future operations. The budget for 1974 has been discussed by the Committee with the Executive Committee in great detail and has been adopted by the Executive Committee. Subsequently, the Board of Directors also agreed to the proposed budget which now is the formal budget of the Institute for 1974. The Committee's 1975 budget extrapolation accomplished a "first" in IEEE's history of looking two years ahead in great detail. Even 1976 and 1977 projections were prepared in rough form. These projections, which take into account the flow of the Institute's operating funds (income and expenses), as well as its return from investments, enable the Board of Directors to plan sufficiently far into the future to foresee required decisions and to reduce the need for hasty decisions to offset sudden, and yet predictable, financial needs.

In overall summary, we feel the Finance Advisory Committee has made a significant contribution to the management of the Institute's financial affairs within a very limited time span. This contribution will continue with the constant aim of optimizing the funds available to the Institute. This relates not only to the General Funds of the Institute, but also to the Group/Society and Regional/Section Funds as well. Only through committing the combined total resources of the Institute, can programs be carried out at optimum levels.



TECHNICAL ACTIVITIES BOARD

IEEE DISCOUNT SCHEDULE FOR SINGLE SALE ITEMS

Effective October 1973
(Supercedes February 1972 Schedule)

- Note:
1. All prices and discounts are based on non-member list prices.
 2. Microfiche versions, when available, at same price as hard copy.
 3. Volume discounts apply to orders of 10 or more copies, except for Standards and JTAC (Joint Technical Advisory Council) Publications, for which sliding discounts apply; all copies of a volume discount order must be shipped to the same address.
 4. This tabulation does not take care of special situations, for example, co-sponsorship of a conference in which special arrangements will be made between the co-sponsors for bulk sales. Any questions of this nature should be referred to the appropriate headquarters Staff Director.

Item	Member Discount	Discount on Volume Orders for One Item	
		No. of Copies	Discount
Standards	25%	10- 49	10%
		50- 99	20%
		100-499	30%
		500-999	40%
		1000+	Negotiable
Conference Publications	25% (Regions 1-7) 50% (Regions 8-10)	10	30%
OOPS: Soft Cover	-		10%
Hard Cover	-		-
Reprints	25%	10	30%
Preprints	25%	10	30%
Bound Transactions	25%	10	30%
Transactions and Journals	50%	10	30%
Spectrum and Proceedings	50%	10	30%
JTAC Publications	50%	10- 49	10%
		50- 99	20%
		100-499	30%
		500-999	40%
		1000+	Negotiable
Cassette Colloquia	40% (rounded to closest \$)	10	30%
IEEE Press (Cloth bound)	25%		None
IEEE Press (Paper bound)	None		None
Microfilm of IEEE Publications	None		None
Binders	None		None

SPECIAL NOTICE

To: Conference Sponsors
Conference Chairmen
Conference Publication Committee Chairmen
From: Richard M. Emberson, Director, Technical Services

Subject: Pricing Conference Publication

1. Take care in setting the price of conference publications, particularly if the post-conference sales price is tied to the price at the conference. Note that there are three typical situations.

A) Publication included as part of the conference registration fee. This is an integral part of the conference budgeting and is of primary concern to only the Conference Committee and the Conference Sponsors. Not infrequently, however, the final cost per page proves to be greater than was estimated in the budget (because more papers were accounted for the technical program, because of many charges in the material after submittal to the printer, or because of many other possible reasons, good or bad). Therefore, the unit cost built into the registration fee should provide some contingency cushion.

B) Publication sold at the conference on a cash-and-carry basis. Sales of this nature usually are a small part of the conference budget. There are no order handling, wrapping, postage, and similar expenses. Thus, it is logical that the unit sales price at the conference may be set lower than the post-conference mail order price will be at headquarters. Sometimes, particularly if there are complex co-sponsorship arrangements, no effort is made at a conference to differentiate between sales to IEEE members and non-members. For post-conference sales, on the otherhand, there is always a 25% discount for IEEE members from the list price that is charged non-members. As a guideline, the conference cash-and-carry price may be set as a minimum at a few dollars more than the estimated unit cost. Alternatively, if agreement has been reached with the sponsors on the post-conference list price, which thus determines the 25% discounted post-conference price to members, \$3 - 5 less than this discounted price might be taken for the cash-and-carry price at the conference.

2. We recommend that no prices be printed in the conference publication. To show the conference cash-and-carry price and the post-conference prices for members and non-members usually creates more confusion than help, particularly if the member price is not listed as 25% off the non-member list price. If in your judgment it is desirable to print a price, then please show only the single post-conference list price that will apply to non-members.

3. In the event a conference is co-sponsored with outside organization, it is the responsibility of the IEEE sponsor(s) to negotiate a bulk purchase (currently a minimum of 350 copies) such that the effective unit price will be compatible with the established list price, as discussed in 1 (c) above.

Paper Costs Are Increasing!

Review All Publication Budgets And Estimates

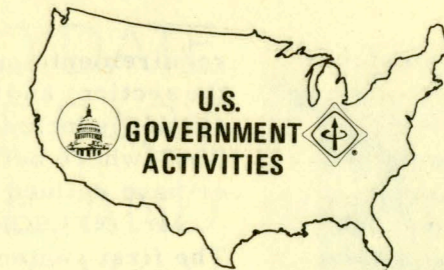
1. In 1973, paper costs have risen sharply and there are many indications this trend will continue through the next couple of years. Part of the cost increases result from obvious reasons - - increased cost of basic materials, labor and transportation. Part of the cost increases result from the environmental quality programs. Many old paper mills are being closed because the owners judge the alternative of installing better pollution control machinery is too expensive to permit profitable operation. The remaining produces seem to be standardizing on a smaller number of grades or types of paper. Paper of the weight frequently used in the past for IEEE publications may not be easily available and a heavier weight paper will have to be used. (Some presses have difficulty with thin, light-weight paper.) The increased tonnage of paper has to be bought at the increased unit price. Note, also, that the heavier paper will increase the postage bill.

2. Budgets based on publication estimates made a year in advance may now be in jeopardy. This may be particularly true for conferences, where there is no regular communication with the printer as is the case for periodicals. For a book, or Transactions, or similar publication that entails expensive editorial and composition expenses, the cost of the paper is usually a small part of the total cost. In such case, a large increase in the cost of paper will not disrupt the budget as seriously as for a typical conference publication, for which paper is a large part of the total cost. If publication budgets or estimates are more than six months old, we urge an immediate review.

3. It may be desirable for you to discuss with your printer some specific action to guard against future increases in the cost of paper, e.g. to obtain an allocation from a supplier at the current price.

C) Post conference mail order sales. The list price for these post-conference sales is more the prerogative of the sponsor(s) than of the conference committee. In practice, the initial post-conference price is a matter that requires joint action, because the conference committee is in the best position to estimate the unit cost. The list price must be large enough to cover the standard 25% discount to IEEE members, fixed costs of order handling and postage that are currently between \$2 - 3, promotion and warehousing, and the uncertainty of selling more than 300-400 copies (average). Also, remember that overseas IEEE members are given a 50% discount (in which case the handling and postage is subsidized from a different account). It is obvious that the post-conference list price must be at least twice the established unit cost. If the conference publication is small and relatively inexpensive, then the fixed post-conference sales charges of \$2 - 3 may be larger than half the estimated unit cost. (In such a situation if the list price were set at twice the unit cost, all post-conference sales to members would be at a loss). Similar arguments apply to the copies we hard-bind and send to the IEEE Open Order Plan (OOP) subscribers. As a guideline, the minimum post-conference list price should be \$3 - 5 more than twice the estimated unit cost.

SPECIAL



ADDENDUM

(IEEE has been leading the fight for pension reform in Congress. Recognition of our efforts can be seen in the following dialogue copied from the Congressional Record—Senate of September 18, 1973. Senator Javits had the floor and began by reading Section 221 (c) of the pension bill. This Section would amend the IRS code by adding the following paragraph:

For purpose of determining whether two or more plans of an employer satisfy the requirements of paragraph (4) when considered as a single plan, if the amount of contributions on behalf of the employees allowed as a deduction under section 404 for the taxable year with respect to such plans, taken together, bears a uniform relationship to the total compensation, or the basic or regular rate of compensation, of such employees, the plans shall not be considered discriminatory merely because the rights of employees to, or derived from, the employer contributions under the separate plans do not become nonforfeitable at the same rate. For purposes of determining whether two or more plans of an employer satisfy the requirements of paragraph (4) when considered as a single plan, if the employee's rights to benefits under the separate plans do not become nonforfeitable at the same rate, but the levels of benefits provided by the separate plans satisfy the requirements of regulations prescribed by the Secretary or his delegate to take account of the differences in such rates the plans shall not be considered not to satisfy such requirements merely because of the differences in such rates.

The explanation of the importance of this amendment is included in the following colloquy.)

Mr. JAVITS. I ask the Senator from Wisconsin, and I would also appreciate the attention of the Senator from New Jersey whether I am correct in my assumption, . . . that this amendment was adopted in response to a problem described in testimony by various engineering societies?

Mr. NELSON. The Senator from New York is correct.

Mr. JAVITS. Mr. President, I read the testimony of the professional engineers, and particularly the testimony of their lawyer, Frank Cummings, to the effect that they would like to set up a pension plan run by the professional societies on a multiemployer basis. I would like to ask the manager of the bill if I am correct in my interpretation of 221 (c) that this

section is designed to permit engineering societies, and professional organizations of other types of employees similarly situated, to establish multiemployer pension plans on behalf of their members?

Mr. NELSON. Mr. President, the Senator is correct. May I say to the Senator, this provision was designed to permit employees—such as engineers, but not limited to engineers or other professionals—to in effect trade off some of their benefits in exchange for earlier vesting.

As the Senator well knows, the problem of this group is that many of them contract to go to work on an engineering project and work for 1 year, 2 years, or 3 years, and the employer for whom they work does not have vesting until the end of 5 years. So, they could

spend their lifetimes going from employer to employer without at any time getting any pension benefits.

Therefore, this amendment would provide that they could have earlier vesting; but at the sacrifice of comparable equal value pension benefits at retirement time

Mr. JAVITS. Mr. President, am I correct in stating that, under this section of the bill, if an engineering society goes to an employer who already has a corporate pension plan for all of his employees, and if the engineering society persuades the employer to transfer that employer's engineers out from under the employer's own pension plan and into coverage under the society-run multiemployer pension plan, the employer will then be providing pension coverage under "two plans considered as a single plan," and that qualification of those two plans considered as a single plan now becomes possible under this new section of the Internal Revenue Code?

Mr. NELSON. The Senator is again correct. However, I note that he suggests that because of this amendment the qualification now becomes possible. Present law is unclear on this point and it may be that this could be done under present law. The bill clarifies this point for the future without deciding whether this sort of trade-off could be accomplished under the anti-discrimination provisions of present law.

Mr. JAVITS. Mr. President, I have one final question. I see that there are two sentences in this provision. The first sentence refers to comparability of contributions, and the second sentence seems to refer to comparability of benefits. I know that the engineering societies have a specific pension plan in mind, and so I wish to determine whether that particular type of pension plan is one which would meet the requirements of this section. Assume that an employer already has a defined benefit plan. Assume further that an engineering society has established a money-purchase plan, where contributions are established, and the benefits are simply whatever is in an individual employee's account when he retires. Am I correct in stating that under those circumstances, section 221 (c) would require that the two plans, considered as a single plan, meet the

requirements only of the first sentence of the section, and that the second sentence of the section is included to deal with another situation—where both the society and the employer have defined benefit plans?

Mr. NELSON. The Senator is correct. The first sentence of section 221 (c) was included to permit, among other things, the qualification of a multiemployer society-run pension plan for engineers or others similarly situated, in circumstances where the employer has a corporate defined benefit pension plan for his employees, and the society has a money-purchase plan for its members. And it was our intention, in adopting this amendment, to permit among other things an employer to provide pensions for his engineers under the society's multiemployer money-purchase plan, while providing pensions for his other employees under his own defined benefit plan, and to make it possible for the employer, nevertheless, to meet the requirements of the code with respect to non-discrimination, notwithstanding the fact that the engineers, who tend to be more highly compensated and more highly mobile, are covered by a plan with earlier vesting. The way the bill's language on this point is drafted, if forfeitures in the slower-vesting defined benefit plan result in reductions in the employer's contribution to that plan, then the employer may also have to reduce his rate of contributions to the money-purchase multiemployer plans. The bill's language clarifies the effect of the antidiscrimination provisions. It does not water down the protection afforded by those provisions.

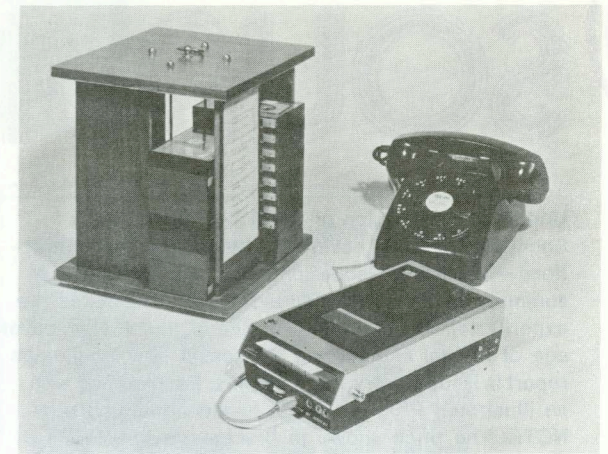
Mr. JAVITS. Mr. President, I thank the Senator, and I am sure that this explanation will help clarify the legislative history of this provision of the bill, and avoid any unnecessary controversy in its interpretation.

Mr. President, I join in the explanation of the ranking minority member on this side. At the same time, I wish to say that the Frank Cummings referred to in this colloquy was my administrative assistant.

I think we all, and especially I, owe to him the origination of the idea of this bill, which he picked up from a report that the committee used in the Kennedy administration. He really started me on this effort to bring about pension and welfare reform.

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Will the courtship of Detroit by electronic equipment manufacturers ever bear fruit? Detriments to fruitful union are evident in the present incapacity of each party to fully understand the other's problems . . . the need for extensive testing . . . the stringent cost parameters . . . 50,000 units per day . . . model and option mix . . . reliability . . . pleasing the car owner. Automobiles are a consumer product and "consumerism" points the way toward the most likely future involvement of electronics—in safety standards, emission control, and online diagnostics. Contributors: C. L. Hogan, *Fairchild Camera & Instrument*; E. W. Meyer, Jr., *Chrysler*; C. D. Simmons, *Ford Motor*; T. O. Jones, *G.M.C.*; K. H. Keller and J. C. Zaalberg, *V. W. of America*. **EH00448 \$12.00 [\$7.00]**

Digital Equipment Corporation's Kenneth Olsen, Andrew Knowles, and Julius Marcus breaking down a PDP-11/05 minicomputer. From the Program Sheet for IEEE Soundings *Minicomputers*.

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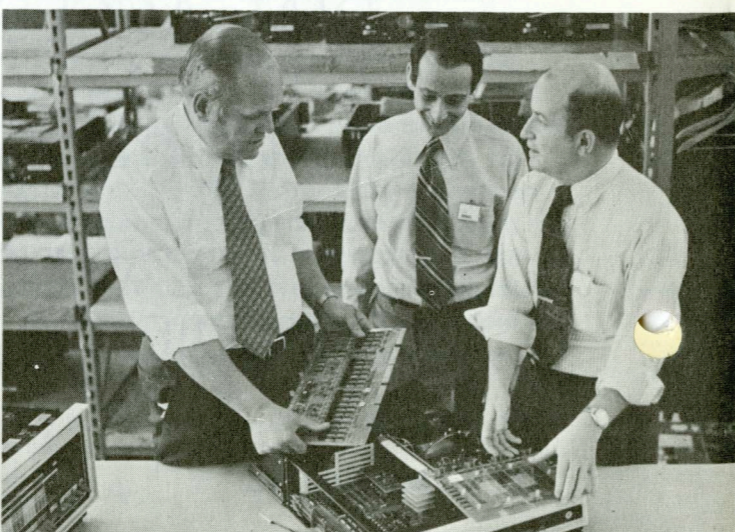
Discusses the current state-of-the-art in CATV hardware, including satellite transmission, and progress being made toward a practicable home terminal device . . . the "software gap," the vulnerability of network TV, the problems of public access, the potential for computer-aided instruction, at-home shopping, government and business use. Contributors: A. R. Stern, *Television Communication*; D. L. Klein, *Computer Television*; R. Wilson, *Teleprompter*; H. J. Schlafly, *Teleprompter*; Hon. Dean Burch, *Chairman, FCC*. **EH00406 \$12.00 [\$7.00]**

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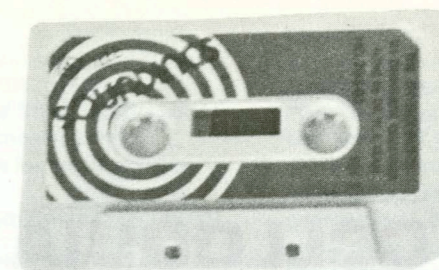
In this provocative SOUNDINGS audio-tape cassette, leading experts discuss the potential for renewed growth: the changing policies of the U.S. in international trade; the expanding marketplace in industry, business services, and government; the need for marketing innovations; the importance of shedding traditional concepts. Contributors: J. F. Bucy, *Texas Instruments*; J. R. Welty, *Motorola*; R. N. Royce, *Intel*; R. L. Petritz, *New Business Resources*. Guest Editor: R. A. Rikoski. **EH00315 \$12.00 [\$7.00]**

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SOUNDINGS Editor Walter R. Beam, Ph.D., is an expert scientist, scenarist, and speaker who has the rare ability to provide cogent prologue, explanations when required, and epilogue to wide-ranging treatments of engineering themes. A Fellow of the IEEE, Walt was an engineering manager at both RCA and IBM and Professor and Head of the E.E. Dept. at R.P.I. He is the author of numerous papers, a graduate textbook, and holds six U.S. Patents. Walt is now a technical and management consultant and lives with his wife and two children in Chappaque, N.Y.

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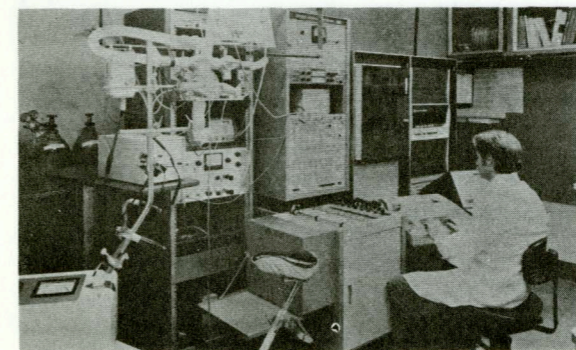
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Cassette Colloquia editor Richard A. Rikoski, Ph.D., has taught electrical engineering at Carnegie-Mellon University and the Moore School of Electrical Engineering of the University of Pennsylvania. Rick's IEEE activities include

membership on the Educational Activities Board and the Career Development Committee of USAC. He is also program manager of the IEEE Dial Access Technical Education Program and currently serves as consultant to the Director of Educational Services in the development of multimedia self-study programs for the continuing education of engineers. He has published a number of papers on microelectronics, non-linear circuit theory, magnetohydrodynamics, and plasma physics, and is the author of *Hybrid Microelectronics Circuits* (John Wiley Interscience, 1973).

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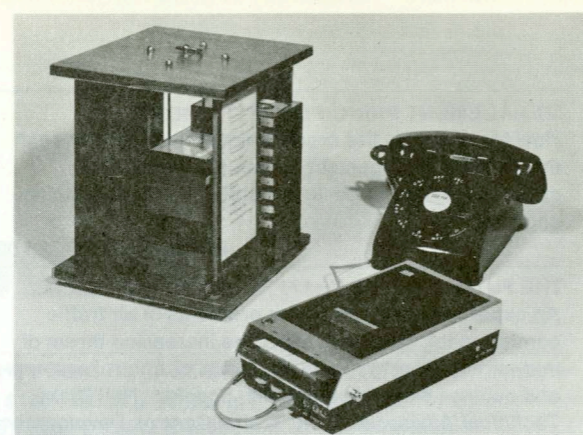
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business of designing and producing systems of all kinds of applications that few people even envisioned a few years ago." Van Veen said the IEEE INTERCON's display of electronic products and systems will be aimed at the "state of the markets," not at "state of the arts."

WESCON was an overwhelming success both in terms of attendance and enthusiasm. Keynote luncheon speaker C. Lester Hogan, President and Chief Executive Officer of Fairchild Camera and Instrument Corp., told the audience that "we are now in an era when international trade policies, coupled with scientific and technological policies, hold the key to success during the years ahead."



Also pictured at the main table were: (left to right) Robert Trinkle, President, Electronic Representatives Association; Einar Ingebretsen, Director, IEEE Region Six, and IEEE President Harold Chestnut.

FOR YOUR INFORMATION

CASSETTE COLLOQUIA is offering "The Invention of the Transistor" as described by Nobel Laureates Bardeen, Brattain, and Shockley. Another offering in the colloquia series is "Engineering Management Strategies," which is the first of a four-part series called, "The Engineer as Entrepreneur and Manager." Both tapes are \$7 for members and \$12 for non-members. (Order, Emma White)

WFEO (World Federation of Engineering Organizations) general assembly was

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attended by representatives of 42 nations at a September meeting in New York. IEEE's Executive Director Donald G. Fink is head of the U. S. National Committee, which acted as host for the conference. The WFEO disseminates technical information among its members with a special emphasis on aiding underdeveloped nations. A two-day conference on environmental engineering problems followed the general assembly.

SECOND LEGISLATIVE FORUM, sponsored by the Engineering Liaison Public Relations Committee, will be held in February. Senator Moss has already accepted an invitation to speak at one of the sessions. The three day affair will be held at the Sheridan Park Hotel in Washington, D. C. (See E. E., April, p. 1)

FINANCE ADVISORY COMMITTEE. What it is and what they do, is described on page 4C.

WE'RE A RAMBLING WRECK for not correctly identifying a picture of Dr. Joe Pettit, President of Georgia Tech. He was pictured discussing the new assignment for Dr. Ronal Larson, IEEE's first Congressional Fellow in the August issue of E. E.

WELCOME ABOARD

New Council:

Central New England Council which includes the following Sections: Boston, Providence, New Hampshire, Worcester County

New Subsection:

Broward County Subsection of Miami Section

New Group/Society Chapters in Sections:

Philadelphia Section: Manufacturing Technology Chapter
Mexico Section: Engineering Management Chapter
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to others)

Denver Section: Joint Power Engineer-
ing/Industry Applications Chapter (by
the formation of S-IA)

Milwaukee Section: Joint Control Sys-
tems/Systems, Man & Cybernetics
Chapter (by adding S-SMC)

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White - Nominations for Appointments	4A-4B
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