FEB 27 1973

ELECTRICAL ENGINEERING BRANCH

Greetings, engineer. Your search for "Electrical Engineering" (E.E.) has ended. Each February, this purveyor of information acquires new readers by virtue of their election or appointment to a leadership position. But not since 1966, have the readers of E.E. been subjected to the writings of a new editor. Therefore, lets all shake hands and pass out the ground rules.

We will try and make this newsletter readable by using only nickel and dime words (that's all our budget can afford anyway). Our aim is to keep the pieces short, but informative and not bore you with repetition. If we've said it before, we'll tell you where. If you see E. E. Apr., p. l, that tells you that more information was contained in the April issue of Electrical Engineering and can be found on page one. If we have material for you, we'll tell you to whom to write for a copy.

Don't frame E.E., mark it up. Make notes next to material that might pertain to you. Save your last six issues of E.E. and your last twelve issues of Spectrum. Keep your Bylaws, Statements of Policy and Organization Rosters handy. We will refer you to these documents to prove our points.

So much for the preliminaries. It is time to return to our neutral corners and get ready to bring on the main event.

NEW DIRECTIONS: PART II. The membership voted to amend our Certificate of Consolidation and move us another step closer to involvement in professional activities. (See E.E. Dec., pp. 1, 4A-4B, Spectrum June, pp. 38-43.) The Certificate, sometimes referred to as the Charter, is the legal document that created IEEE as a merger of the Institute of Radio Engineers (IRE) and the American Institute of Electrical Engineers (AIEE) in January 1963. The vote on amending the Certificate

was 43,008 in favor and 6,544 opposed. The last remaining step, before we can legally institute these new goals, is for the amended Certificate to be signed by a New York State Supreme Court Justice.

TOP-SIDE DEVELOPMENTS

NEW OFFICERS officially took their posts as of the first of the year. A complete list of the current Board of Directors (BofD) and Executive Committee (ExecCom) appears on page 4A.

GUIDELINES TO PROFESSIONAL EMPLOY-MENT have been endorsed by the BofD. These Guidelines include employment policies in the areas of recruitment, terms of employment, professional development, and termination and transfer. They were written by representatives of 16 major societies. These societies represent over 650,000 engineers.

IEEE was the second society to endorse the Guidelines; the National Society of Professional Engineers (NSPE) was the first. It is expected that all of the societies will endorse this unity document by the end of March. The Guidelines will be the principle subject discussed at an industry leadership meeting in Chicago on May 7-9.

MEETING SCHEDULE. The BofD has scheduled three more meetings for this year. While always subject to change, the current dates and locations are: March 29 (New York), September 10-11 (California), and November 29-30 (site to be determined). ExecCom will meet: February 17 (New York), March 27 (New York), April 25 (San Antonio), May 18 (Montreal), June 24 (Pittsburgh), July 21 (Vancouver), August 18 (Denver/Boulder), September 9 (West Coast), October 20 (New Orleans), November 19

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

ELECTRICAL ENGINEERING® is published bi-monthly by IEEE, 345 East 47 Street, New York, N.Y. 10017

(San Diego), and December 16 (New York). The May, August and December meetings are currently listed as tentative.

BYLAW CHANGES made in December and January:

105.2 - (See E.E. June, p. 1.) Revised again. Now a Fellow Candidate must be Senior Member and have been a member in any grade for five years, rather than seven. The change also removed the ability of the BofD to waive this provision.

311.7 - The President was made a member of the Long Range Planning Committee and the committee limit of ten members was removed.

201. 2, 201. 4, 301. 1, 313. 8 - These were modified to remove language referring to the office of Director/Delegate-at-Large, a position that no longer exists.

401. 4 - This amended Bylaw gives the Regional Committee the right to decide if representatives from local Councils, on the Regional Committee, should be voting or non-voting members.

A new copy of the Bylaws, containing all the latest revisions, is currently being prepared. (Copies, Emily Sirjane)

GUIDELINES for Publishing Group/Society Periodicals Outside IEEE Headquarters and Page Charges and Overlength Paper Charges are printed on page 4C.

NEW POLICY STATEMENTS were adopted at the December BofD meeting. These were statements on: the Professional Activity Objectives of the IEEE, U.S.A. Professional Activities of the IEEE, and Spectrum Editorial Policy. These have been printed on pages 4B-4D. (Extra copies, Barbara Brown)

CHANGE IN POLICY STATEMENT #10-A. Meeting reports are now due on February first instead of March first.

NEEDLES AND PRODS

ATTENTION grist manufacturers: send your grist to the editor of this mill; we knead it.

NATIONAL ENGINEERS' WEEK is approaching rapidly (Feb. 18-24). Don't miss this excellent opportunity to publicize your activities in your local news media. For the public to be convinced that engineers are real people, they must be made aware of how your accomplishments create a better world. I don't know of anyone who knows more about what your group is doing than you do, so spread the word.

SOCIO-ECONOMIC ISSUES

IT'S TAX TIME again. It seems that members are confused about whether our new organizational changes will affect their ability to deduct IEEE dues on their tax forms. No tax information can be put simply, so we strongly advise you to see a tax consultant. We have been advised that our dues remain tax deductable as a business expense as long as your business, employment or profession bears some reasonable relationship to engineering. Dues will not be tax deductable as a charitable contribution. (See E. E. Dec., p. 7, Feb. '72, p. 7)

GO BACK, YOUNG PERSON, if you did not read the Washington News column in the January issue of Spectrum, p. 19. It contains information on what "almost happened" on the pension front in 1972 compiled by IEEE's Special Washington Counsel Frank Cummings.

A JOINT ENGINEERING LEGISLATIVE FORUM, which will last for three days, is being co-sponsored by IEEE and ten other engineering societies. Political leaders from Congress and the Administration are expected to head a program on technology and economic concerns. The Forum will be held in Washington, D.C. at the Washington Hilton Hotel. The dates are February 26, 27, 28.

CONVENTION NEWS

There are several changes planned for IEEE INTERCON '73. All technical sessions

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.

will be held at the Hotel Americana and the N. Y. Coliseum will house the exhibition. Complete technical papers will be published in a bound volume as well as individual session pre-prints.

Two evening sessions, which for the first time are open to the public, have been scheduled. On Monday night (3/26), the Energy Crisis will be discussed. Limits to Growth will be the topic on Wednesday night, chaired by President Harold Chestnut. A complete schedule on the technical sessions is published on page 4E. (Additional information, J. H. Schumacher)

FEATURED SPEAKER AT THE ANNUAL IEEE INTERCON BANQUET will be Barbara Ward, author and Professor of International Economic Development at Columbia University. Along with Rene Dubos, she co-authored the book "Only One Earth. " It deals with our environmental problems in their totality which includes the impact of technology. The banquet will be held on Tuesday (3/27) in the Imperial Ballroom of the Hotel Americana. (This is one day earlier than in past years.) The program will also include the presentation of the Medal of Honor, Major Annual Medals and the Hoover Medal. A special salute will be given to the 117 people recently elected as Fellows. William Shockley, Walter Brattain and John Bardeen, winners of a Nobel Prize for the invention of the transistor, will also be recognized. At a special luncheon, earlier in the day, IEEE will have presented them with a gold medal in honor of the 25th anniversary of their invention.

LIFE MEMBERS will have their own special activities in addition to the regular schedule. As in the past, Life Members are requested to mail in advance notice and will receive free registration. On Wednesday morning (3/28) the special Life Member session will feature Dr. Bern Dibner as guest speaker. He is Director of the Burndy Library in Norwalk, Conn. and President of the Society for the History of Technology. (Further details, Renee Carey)

LADIES NOT INTERESTED IN THE TECH-NICAL PROGRAM should stop off at their special headquarters in Albert Hall of the Hotel Americana. Interesting tours have been planned as well as a special session and luncheon.

REGION AND SECTION NEWS

BEWARE THE AX. February 28th is the date when unpaid members are dropped from the books. A third dues billing was mailed Feb. 1 with a final bill scheduled for March 1.

To help spur renewals, Sections and Chapters are requested to include reminders of the Feb. 28th deadline in their coming meeting announcements and/or their next Section newsletter. In early March. the Sections will receive a list of unpaid members. Each Regional Director will request his Section Chairman to have their Membership and Transfers Committee (M&T) tactfully follow up, preferably by phone or personal contact. Unavoidably, there is always a slight overlap between the last minute renewals and the printing of an arrears list. Don't let this deter your efforts. Now is the time to bring the reluctant member on board.

SECTION FINANCIAL STATEMENTS were due at Headquarters by February 1. If you have not sent them in, you may find your March rebate check slightly delayed. . . Enough said!

NEW REGIONAL DIRECTORS will be elected this fall in Regions 1, 3, 5, 7 and 9. Each of these Regional Committees is required to submit to the BofD, by April 30, at least one nomination for this position. Regional Directors elected this fall will serve for two years beginning January 1, 1974. (See Bylaw 313.4)

TECHNOLOGY MOVES ON! While most of us were making plans to hear Guy Lombardo and/or see the ball drop from the Allied Chemical Tower in Times Square, a new IBM computer was being installed at Headquarters. With this new piece of machinery, we will improve our efficiency in sending out dues billings, printing labels and maintaining membership records. Sections are advised to check the price of having Headquarters

supply your mailing labels. (Price information, Emily Sirjane)

STUDENT NEWS

A SPECTRUM STUDENT ADVISORY
BOARD has been recently created to give
Student reactions and a general overview
to the content of our monthly magazine.
Five students have been named to the initial
Board, serving one year terms. (See
Student Newsletter, Feb.)

IS THERE A HAM AMONG US? A "Call-book" of Student amateur radio operators is being compiled. If you want to be included, you have until March 31 to send in your OSL's. Be sure to announce this at your next meeting and get your members "on the air." Include a stamped, self-addressed legal size envelope and you will get a free copy when it is published. (OSL, Bob Asdal)

STUDENT ACTIVITIES COMMITTEE (SAC) SECTION BULLETIN is being mailed monthly to Regional Directors, Section Chairmen, Student Counselors and SAC members. It will suggest programs to improve Student-Section relationships. Look for it! Read it! React to it!

STUDENT AWARDS: The W. D. George Memorial Award offers a \$1,000 prize for the best undergraduate paper in instrumentation and measurement. The 1972 Award winner was Ernest Franke from Newark College of Engineering.

Also, the Nuclear and Plasma Society offers five student awards. Four go to U.S. IEEE Student Members and the fifth goes to a non-U.S. IEEE Student Member. (Details for both Awards, Spectrum, Feb., and Student Newsletter, Feb.)

A NEW IDEA IN EDUCATION is being tried by Worcester Polytechnic Institute (WPI). The concept is to do away with credit hours. As described in a news story distributed by the CSM News Service, the WPI plan divides the calendar into seven-week terms. Cooperation with business, industry and government for on site internships is also stressed. "For graduation,

credit hours are now meaningless. Demonstrated competency. . , is the key to a degree."

EDUCATION NEWS

EIGHT ONE-DAY SHORT COURSES will be given in New York City during the week of IEEE INTERCON. For complete information on what is being offered, see page 4F.

CLASSIFYING THE SKILLS AND INTER-ESTS of IEEE members is an idea currently being considered. A broad-based classification form was developed by Dr. Walter Beam. It is presently being reviewed by members of the Technical Activities Board (TAB) and the Regional Activities Board (RAB). (If you have any comments or want to see the form, write Joe Casey.)

TWO NEW CASSETTES AVAILABLE.
Soundings has produced a cassette about
Minicomputers, edited by Dr. Walter Beam
(\$7 for members, \$12 for non-members).
Another cassette available is called "Your
Career in Electrical Engineering." It introduces the pre-college student to the career potentials in the electrical/electronics
industry (\$4). Also available is a hardcover binder that has room for a year's
supply of Soundings (\$5). (Order forms,
Mrs. Emma White)

CREDIT FOR CONTINUING EDUCATION COURSES. A plan that calls for IEEE to certify and record educational achievement of IEEE members is under consideration. A transcript would be maintained by the Institute for all the courses certified by IEEE and completed by the member. This would be available as proof to an employer or prospective employer that he's keeping his knowledge up-to-date. If you have any comments on the proposal, make them known. (Contact, Dr. Roy Mattson, E.E. Dept., Univ. of Arizona, Tucson, Arizona 85271)

PUBLICATION NEWS

THE IEEE PRESS is in the black after only seven months of operation. The surplus is

E.E. No. 45-4 February 1973



DIRECTORS-AT-LARGE

COMPOSITION OF THE 1973 IEEE BOARD OF DIRECTORS

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		Vice President		9	Ernesto	Obregon	1972-73
	3	James H. Mulligan, Jr.					
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	4	Robert H. Tanner		E	lected by	Divisional members	
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	5	William H. Thompson				Membership and Tra	nsters
		Secretary				Student Activities	
	6	Arthur P. Stern				Admissions and Adva	
		Treasurer				U. S. Activities Coop	dinator
	7	Robert M. Saunders		Di	llard	Technical Activities	
		Chairman, Educational				Conference Board Co	ordinator
		Activities Board		T	nompson	Constitution	
	Q	Bruce B. Barrow				Bylaws	
	O					Policies and Agenda	Coordinator
		Vice Chairman, Technic	aı	St	ern	Finance	
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	9	Donald G. Fink				Life Member Fund	
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A	RE	GIONAL DIRECTORS				Awards Coordinator	
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		Harold S. Goldberg	1972-73				
	2 :	Leland D. Whitelock	1973-74	(A)	ll terms	are one year except w	hen noted.)

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NEW POLICY STATEMENTS APPROVED BY BOARD OF DIRECTORS

of the IEEE

In the area of professional activities which relate to social, economic, legal and ethical issues, there are certain topics on which it is important and highly desirable that the skills and expertise of qualified IEEE members be used to bring out pertinent facts that can serve to highlight key issues and bring them into clearer focus. In matters of national professional significance, the Board of Directors, its Executive Committee, or the President may appoint or authorize an IEEE committee, staff or volunteer to look into a particular subject as defined by the Board and ask for a report that includes a consensus of opinion where appropriate. The report may be further reviewed and augmented as necessary by the Board of Directors or by the Executive Committee.

If the Board of Directors has not expressed a position, then the publication or presentation of committee reports to other organizations is to be considered as reflecting the opinions of the committee and not necessarily the membership.

As a basis for assisting the IEEE Boardinestimating the opinion of the IEEE membership on pertinent subjects, such as those on items of a technical or professional character, or those related to certain governmental, legislative or executive issues, use should be made of member opinion surveys. These surveys should be made from time to time of the whole membership of the Institute or of the appropriate special part, as well as by means of membership sampling techniques when a broad data base exists that can be used for comparison.

All organizational units of IEEE should inform the Executive Committee, through their Regional or Divisional Director, of their intent to engage in significant professional activities not otherwise authorized.

Policy Statement on IEEE Professional Activity Objectives

In addition to its technical and educational functions, the IEEE endorses the following professional objectives:

- 3.1 The IEEE shall promote the necessary activities, including governmental, legislative, and administrative action which shall:
 - A. Enhance the economic status of the electronic and electrical industry;
 - B. Enhance the professional, social, economic and ethical status of the engineering profession in general and electrical engineers in particular.

E.E. No. 45-4B

- Policy Statement on U. S. A. Professional Activities 3.2 The IEEE shall embrace the principle that all its members should have the opportunity to build up retirement equity and to do so without the hazard of forfeiture for reasons beyond their control. It is to this end that we cite these objectives:
 - A. To achieve early vesting, portability, early retirement protection and sound funding in private pension plans by both voluntary action and legislative method;
 - B. To provide by legislative change the opportunity for individual retirement investment with pre-tax dollars.
 - 3.3 The IEEE will strive continuously toward improvement of working conditions for engineers. In coordination with associated engineering and scientific societies, and in consultation with employers' representatives, the IEEE will coauthor employment practices programs and will encourage the adoption of such programs by employers. These shall detail responsibility of both employer and employee to each other and of both to the public and environment. Methods of achieving improvement in employment conditions shall be investigated.
 - 3.4 As a means of measuring progress toward professionalism, the IEEE shall periodically canvass its membership to obtain information relative to salary, benefits, employment conditions and engage in other information-gathering activities as appropriate.
 - 3.5 It shall be the objective of the IEEE to achieve full employment for its members and the IEEE shall engage in those activities compatible with its Constitution which will enable it to achieve this goal. It shall attempt to forecast direction of expanding technology with a view toward career guidance and enhancement.
 - 3.6 The IEEE shall actively promote the activities of the engineering profession to its membership and to the public and shall do its utmost to enhance the status of engineering in general and the electrical engineering profession in particular.
 - 3.7 The IEEE, concerned for the quality of life for all people, shall use its technical and professional expertise for the betterment of the environment, improved living conditions, and effective utilization of world resources.

Editorial Policy of IEEE SPECTRUM

IEEE SPECTRUM is a monthly magazine distributed to all IEEE members. Its editorial mission is to

written to be meaningful to a wide audience so as to ensure that members can keep abreast of important technical developments outside their own particular fields of specialization; to cover topics related to the professional advancement of individual members including news of the profession and of the Institute, and to address issues concerned with the role of technology in society.

IEEE SPECTRUM contains review and tutorial papers, occasional theoretical papers of broad and fundamental import, papers of application and economic significance, announcements of and reports on conferences and conventions, news of education, letters to the Editor on topics of general concern as well as of technical interest to the profession, and abstracts of or references to material in other IEEE publications. The technical level of this core publication shall be a positive force in upgrading the median level of the membership ability.

Guidelines for Publishing Group/Society Periodicals Outside IEEE Headquarters

- 1. The Group/Society shall submit a written proposal. with which the Divisional Director concurs.
- 2. There shall be a potential distinct cost or time advantage for comparable quality, or if the expected advantage is other than cost or time, that expected advantage shall be stated in the proposal.
- 3. Quotations shall be obtained from at least two sources for editing, composition and printing.
- 4. The Group or Society shall have a functioning broad-based publishing organization, including a Publications Committee, an Editor, and Associate Editors, or equivalent.
- 5. The above publishing organization shall have demonstrated proven performance capabilities and knowledge in the publications field.
- 6. The proposal shall be approved by the IEEE Executive Committee following review and approval by the IEEE Publications Board and TAB OpCom.
- 7. If possible, the transition to outside publication shall start with the first issue of the calendar year.
- 8. An annual review shall be made for three years after a transition is made.
- 9. All contracts for outside publication shall be handled through IEEE Headquarters. (Group/Society officers may make initial, exploratory negotiations, but the final documents are subject to review and signature of the IEEE General Manager, or his designated agents.)

present technical articles of high professional quality, 10. The Group/Society shall continue to pay its appropriate share of the fixed Department costs at Headquarters.

Policy Statement on Page Charges and Overlength Paper Charges

A. Page Charges

Page charges are based on the philosophy that the usual research or development project is complete only when the results have been disseminated to the engineering and scientific community, and that it is thus proper that the financing of the project include funds to support, in part, the cost of publication. IEEE technical journals, being important vehicles for reporting new technical results, are therefore authorized to adopt page charges under the following policies and conditions:

- 1. The adoption of page charges by a publication is at the option of the publication and requires the advance approval of the Publications Board and the Technical Activities Board or their authorized representa-
- 2. The payment of page charges is entirely voluntary. It is not to be a factor in the consideration or processing of a paper or a prerequisite for publication.
- 3. Page charges are levied against the author's institution, not the author.
- 4. The page-charge rate is established by the IEEE Executive Committee and is based on the set-up costs of publication, including editing and composition. There are three page-charge rates corresponding to the three basic publication processes employed by IEEE publications, namely, (1) justified composition with full editing, (2) unjustified composition with minimal editing, and (3) author-typed manuscripts. All publications within a given category must charge the rate established for that category.
- 5. Authors whose institutions pay the page charge are provided 100 free reprints per paper at the expense of the journal.
- 6. Conference Records and Digests do not qualify for page charges.

B. Overlength Paper Charges

The overlength paper charge is a mechanism for encouraging authors to keep their papers short by requiring them to pay for each page that exceeds a specified limit. All IEEE technical publications, including Conference Records and Digests, are eligible to adopt overlength paper charges, subject to the following policies and conditions:

1. The adoption of an overlength paper charge by a publication is at the option of the publication and requires the advance approval of the Publications

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February 1973 E.E. No. 45-4C Board and the Technical Activities Board or their authorized representatives, including approval of the length limit and the amount of the charge.

- 2. The limit on the length of papers must be reasonable for most authors to meet and appropriate to the publication. The length limit may vary from one publication to another.
- 3. Authors are to be given an opportunity to meet the length limit before being charged for excess pages.
- 4. A mechanism must be provided for waiving the overlength paper charge in special circumstances. The mechanism and the circumstances under which it is to be applied are to be determined by the management of the publication.
- 5. The overlength paper charge is not to exceed the publication cost of the excess pages. The charge per page may vary from one publication to another. For conference publications, the charge shall be some reasonable amount that may exceed the estimated cost per page; the charge shall be fixed as part of the conference budget. For periodicals a reasonable charge may be the existing voluntary page charge or the actual cost, whichever is higher.
- 6. Publications with voluntary page charges may also adopt an overlength paper charge, in which case the voluntary page charge would apply to the pages up to the length limit and the overlength paper charge would apply to the pages exceeding the limit.

C	NEW YORK COLISEUM Film Theater First Floor	Poyal Ballroom B	Royal Ballroom B	Georgian Ballroom	Royal Box	Regency Foyer	Regency Ballroom	Royal Ballroom B	Versailles Terrace	Royal Ballroom A	Georgian Ballroom Suite B	Georgian Ballroom Suite A	HOTEL AMERICANA OF NEW YORK	IEEE '73
	Continuous Film Theater	Special Selected Films		Highlight Session 8 p.m. Energy Crisis		Session 7 Optical Computing	Session 6 Prospecting for Energy	Session 5 Satellite Multiple Access - The Key to Effective Utilization	Session 4 Computers in Public Systems	Session 3 Precision Marketing/Can Computers Help?	Session 2 Semiconductor Main Frame Memories	Session 1 Progress in Solid State Imaging	Monday March 26 2 p.m4:30 p.m.	INTERCON TE
	ter 10:30 a.m 5	9:30 a.m12 noon	Play 8 a.m9:15 a.m. Barbara's Polar Bears			Session 14 Information Theory After 25 Years Synopsis	Session 13 Energy Storage	Session 12 Communication Satellite System Applications - Extending Our Horizons	Session 11 The Evolution of Large Covernment Computing Systems	Session 10 Interior Information Transfer - An Application of Multiplexing	Session 9 Archival and Mass Mamories	Session 8 Computer Application in the Manufacturing Environment	Tuesday 9:30 a.m12 noon	CHNICAL PROGRAM
4	p.m. Tuesday through	on Monday Only.				Session 21 Implementing Random Logic with Microprocessors	Session 20 Power System Control	Session 19 Bus Organized Interconnection Techniques	Session 18 Hybrid Simulation: What is it—and How Viable?	Session 17 Maintaining the Competitive Edge in International Markets	Session 16 Video Storage; Present and Future Impact on Communications, Information Retreival, and Data Display	Session 15 Minicomputers: Boon or Blight - A Workshop Panel Session	March 27 2 p.m4:30 p.m.	RAM SESSION
	Thursday 10		Play (Repeat) 8 a.m9:15 a.m. Barbara's Polar B		Session 57 Industrial Application of Power Semiconductors	Session 28 The Philosophy and Methodology of Tecunological Forecasting	Session 27 Can Direct Interaction With a Computer Serve You?	Session 26 Projection Display Systems	Session 25 State of Computing Outside the U.S.	Session 24 Outlook for Purchasing Components for '73	Session 23 ISI - MOS Circuits	Session 22 EDP as a Business Opportunity	Wednesday 9:30 a.m12 noon	CHART
	10:30 a.m 2 p.m.		Bears	Keynote Session 8 p.m. Limits To Growth		Session 35 Technology Assessment and Applications	Session 34 New Developments in Signal Generators	Session 33 Matrix Displays	Session 32 Electro- Mechanical Versus Solid State	Session 31 Control - Utilizing Light Sensitive Devices	Session 30 High Packing Density Bipolar Technology for Large Scale Integration	Session 29 The Transistor - Yesterday, Today and Tonorrow	March 28 2 p.m4:30 p.m.	
	on Friday					Session 42 Surface Acoustic Wave Devices in Real Systems	Session 41 Resistor Trimming	Session 40 Cybernetics and Man- Machine Systems	Session 39 Television	Session 38 Instruments for Computer- Controlled Test Systems	Session 37 Electronics for the Visually Handicapped	Session 36 Environmental Electroacoustics	Thursday 9:30 a.m12 noon	
					Tidle sen yal u sag	Session 49 Advances in Transducer Design	Session 48 Microwave Solid- State Amplifiers and Oscillators - Two or Three Terminal Devices	Session 47 The Significance of Satellite Telecommunications for Developing Countries	Session 46 What Detroit Really Needs From the Electronics Industry	Session 45 Program Generation for Automatic Test Equipment	Session 44 Engineering and Purchasing: Allies or Adversaries	Session 43 Numeric and Alpha-Numeric Displays for Instruments	March 29 2 p.m4:30 p.m.	
						Session 56 Impact of New Technologies on Silicon Devices and Circuits	Session 55 MIC's in Instrumentation	Session 54 Automated Machine Control Technology	Session 53 Multinational Marketing of Seniconductors by U.S. Manufacturers	Session 52 Applying Computer- Controlled Test Systems	Session 51 Solid State for Consumer Electronics	Session 50 Advanced Micro- electronic Packaging for Cost, Reliability and Field Service	Friday March 30 9:30 a.m12 noon	
	E.E.	No.	45—4E									February 19	73	

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IEEE/EAB 1973 SHORT COURSES

DATE	COURSE & DIRECTOR	LOCATION*
Monday, 3/26	Mini-computers Ralph Manies, Bruce Noel, Hewlett-Packard	United Engineering Center Auditorium
	Computer Monitoring of Power Systems J. D. Morgan, U. of Missouri	Engineers Club
Tuesday, 3/27	Network Topology & Its Engineering Applications S. Chan, U. of Santa Clara	United Engineering Center Auditorium
	Time Domain Synthesis K. Su, Georgia Institute of Technology	Engineers Club
Thursday, 3/29	Digital Filters B. J. Leon, Purdue University Computer Aided Network Design	United Engineering Center Auditorium Engineers Club
	M. Blostein, McGill University	
Friday, 3/30	How To Start Your Own Business D. Dible, Enterprise Press	United Engineering Center Auditorium
	Semi-conductor Memories D. Hodges, U. of California-Berkeley	Engineers Club
		* All in New York City

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Registration

Enrollment is limited, therefore persons interested in taking these courses are urged to enroll early. Companies may enroll any number of individuals and supply the names later. TO ENSURE ENROLLMENT, INDIVIDUAL NAMES MUST BE RECEIVED BEFORE MARCH 15, 1973. For an enrollment form, write: Mrs. Emma White, IEEE, 345 East 47th Street, New York, N. Y. 10017.

All courses, except Semi-conductor Memories, cost \$40 for IEEE members, \$25 for IEEE Student members and unemployed engineers, and \$60 for non-members. Semi-conductor Memories course costs \$50 for IEEE members, \$35 for IEEE Student members and unemployed engineers, and \$70 for non-members.

When

All courses will be from 9:00 a.m. to 4:00 p.m. Date and location of the course offerings are shown above.

TECHNICAL ACTIVITIES BOARD

IEEE REGIONAL OUTSTANDING LECTURE TOURS

The following Guidelines were reviewed and approved by TAB OpCom at the January 19th meeting. Inquiries and proposals should be addressed to Dr. Peter D. Edmonds, IEEE, 345 E. 47th Street, New York, New York 10017, Telephone (212) 752-6800 Ext. 333.

PREAMBLE: These guidelines relate to an ongoing program. The start-up phase has already been accomplished. The high season for invitations is predicted to occur in July-September for fall meetings and October-December for spring meetings. Dates in these guidelines are selected for compatibility with the local meeting season, the induction of new Section/Chapter officers on July 1 and of new Group/ Society officers on January 1, with corresponding fiscal years for these entities.

- 1. Topics: Groups/Societies, inter G/S committees of TAB and the Technology Forecasting & Assessment Committee shall be asked to review the topics currently offered and to suggest additions and deletions with a view to relevance, balance, comprehensiveness and anticipated interest. The request for review shall be issued annually in March with emphasis on a two-month response time. A similar request shall be presented by the RAB Secretary at the annual briefing for Section officers in March and September.
- 2. Speakers: All IEEE entities named in 1. above shall be asked to recommend speakers on current or additional topics. Emphasis will be placed on making recommendations during the two-month period April-May, though inputs are encouraged at all times. The staff coordinator will determine willingness of nominees to serve as speakers and fulfilment of the following criteria.

3. Criteria for Listing Speakers:

- a. The appropriate G/S Technical Committee (includes inter G/S committees) or its officers must certify that the nominee is technically competent in the subject topic.
- b. A member of the appropriate G/S technical committee or a peer reviewer recommended by such member must certify from personal knowledge of the nominee that he/she is an audible, coherent and interesting speaker capable of communicating effectively with non-specialists in the subject topic.
- c. The nominee must agree to be generally available to accept invitations, subject to adjustment for compatibility with prior commitments and scheduling constraints of hosts and employers.
- d. A speaker shall be normally listed until the end of the second calendar year following his/her initial listing. A fallow period of one year will normally ensue prior to relisting upon recommendation as in 1. above. In the event of unusual demand or unusually favorable reports from hosts, a speaker may continue to be listed on an annual basis beyond the normal two-year period. Relisting after the fallow period constitutes a new initial listing.
- 4. Budgets: The Staff coordinator will submit annually a budget for the following year's operations of the program to the appropriate IEEE Committee as required.

a. A Section and its Chapters and Branches (which shall be considered together as one hosting entity) shall be entitled to request visits by two speakers during any year beginning July 1. Requests for additional speakers will be handled if sufficient funds are available due to lesser demand in other Regions. Student Branches must coordinate requests with their Section or Chapter officers.

- b. The Staff coordinator is instructed to allocate budgeted funds equally by IEEE Region, i.e. one-tenth to each Region, and to direct his efforts toward equalizing Regional benefits from this program. However, he is accorded discretion to adjust allocations in the later half of each calendar year if demand from any Region is less than that deemed likely to absorb the one-tenth portion allocated for the Region and demand from another Region is correspondingly greater. It is recognized that benefits to a Region depend upon Section and Chapter officers in that Region taking the initiative in requesting speakers or accepting speakers whose itinerary enters or traverses that Region. In notifying Sections of the availability of individual Speakers, the coordinator shall take account of the relative abundance of local resources of speakers, as well as the suitability of the available topic to the anticipated
- c. Speakers shall be reimbursed to the extent of their actual and reasonable expenses for economy air fare, ground transportation (including car hire, when essential) accommodation and meals and minor miscellaneous expenses incurred in the fulfilment of their engagements to speak at IEEE meetings. Sections are encouraged to entertain the speaker to one meal and to pay for one night's accommodation from Section funds. When the speaker combines other business with IEEE engagements, the extent of reimbursement shall be limited to the IEEE-related portion of the itinerary, where it is understood that expenses of attendance at IEEE-sponsored events other than the speaking engagements, are not reimbursable under this program, though they may be under other IEEE programs.
- d. No honoraria are payable under this program (IEEE Policy Statement 11-A-2a).
- e. In the event that one speaker is seen to be receiving a disproportionate amount of the available funds, then the staff coordinator shall determine whether the potential benefit to IEEE members warrants additional limitations designed to distribute the funds more equally.
- 6. Implementation: The Staff coordinator at IEEE Headquarters shall be responsible for receiving invitations, securing acceptances by the speakers, establishing agreed itineraries, informing all parties of details of the itineraries, reimbursing expenses to speakers upon submission of documented expense statements, obtaining verbal reports from speakers and hosts, and submitting summary progress reports as required. The host Section or Chapter officers shall be responsible for all phases of each event between receipt of notification of an itinerary and despatch of a letter of thanks to the speaker. These phases are detailed in the form letter appended to and considered a part of these guidelines (Appendix 1.)
- 7. Publicity: Opportunities to publicize the program shall be offered to the editors of Spectrum, Electrical Engineering, G/S Newsletters and Section bulletins at least annually for publication in the first issue after July 1 and on a continuing basis as lists of topics and or speakers are revised. General publicity serves the following purposes:
 - a. to alert Section and Chapter officers and members to the resources of the program;
- b. to alert G/S officers and members to the continuing need for recommendations of additional topics and speakers; and

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c. to alert all concerned to the special circumstances involving international travel (See 9a below).

Host Sections and Chapter officers shall be responsible for publicizing specific events, using local knowledge and custom, but in consultation with the speaker concerned (See Appendix 1, paragraph 3).

- 8. Review: The RAB/TAB Technical Meetings Committee or its successor entities shall be responsible for overall review and guidance of the program. The report of the staff coordinator shall be taken into account in determining whether a listed speaker shall be continued or dropped.
- 9. Special Circumstances: A sustained effort in communication is required for the international aspects of this program. Lead times of three months are mandatory. Information on international travel plans is required on a continuing basis and is of value only for the contemplated trip in question.
 - a. International travel is not normally reimbursable under this program. It is anticipated that the primary motivation for intercontinental travel will be business or pleasure financed from non-IEEE sources. Deviation from the primary itinerary to fulfil engagements under this program are cause for reimbursement to the extent that the cost of following the actual itinerary exceeds that of the primary itinerary. Intracontinental travel is covered under Guide 5c.

Exceptions to this Guideline require specific authorization of the chairman of the TMC or its successor entities in each instance.

b. In the event that projected year-end expenses are significantly less than the amount budgeted under this program, the Staff coordinator will so inform the TAB Secretary on or before September 30 in order that surplus funds may be offered to the G/S to support their Speakers Bureaux.

Appendix 1: Form letter to hosts and speakers, with sample itinerary.

To: Speaker
Host Section Chairmen
(with copy for Host Section Program Chairmen)
Host Section Bulletin Editors

Gentlemen:

Re: IEEE Regional Outstanding Lecture Tour

I enclose partial details of the lecture tour which has been arranged in accordance with your wishes as far as these are compatible. The remaining aspects of lecture titles, transportation, accommodation and publicity are best arranged by direct communication between speaker and hosts. Appropriate spaces have been provided on the enclosure for inclusion of these details.

Attached are abstracts of lecture(s) and biographical data to the extent provided by the speaker. Host Sections officers named on the itinerary sheet are now asked to take the initiative in making the following arrangements (given in the form of a checklist to avoid uncertainty):

- 1. To check on transportation schedules appropriate to the arrival and departure of the speaker.
- To consider publicity media and distribution to be used to announce the lecture.
- 3. To call the speaker and confirm and lecture title, request additional abstracts, if needed for publicity, discuss distribution of publicity materials the speaker may be acquainted with colleagues or institutions in your Section who should be

informed of his visit). explain how the Section/Chapter meeting will be conducted, determine arrival and departure times, modes and locations, arrange a specific meeting point (usually the airport of arrival) and, if necessary, advise on idiosyncracies of local transportation, confirm hospitality and hotel arrangements.

- 4. To ensure that the lecture is featured in the Section Bulletin and otherwise publicized for attraction of the best possible audience. The event can be distinguished from other Section meetings by reference to the IEEE Regional Outstanding Lecture Program.
- To meet the speaker on arrival, escort him to the lecture location and provide appropriate hospitality during his visit.

All transportation expenses will be reimbursed to the speaker upon submission of an expense account to me at IEEE Headquarters following the tour. Ticket stubs and major receipts should be presented and submitted with the account. An advance of funds can be provided on request.

I trust that we are all clear how to proceed and that the result will be a very successful tour affording satisfaction to all concerned. If I can be of any further assistance, please do not hesitate to call. (212/752-6800 Ext. 333). I shall welcome your comments, also.

Sincerely,

Peter D. Edmonds

ESCUELA COLOMBIANA DE INGENIERIA APARTADO AEREO 20307

Covers all Engineering Fields; Wants Electrical Engineering books and periodicals.

New Engineering Institute in Columbia:

The Escuela Colombiana de Ingenieria will cover all fields of engineering, according to advice from our Region 9 Director, Ernesto Obregon. The library of the new Institute is seeking donations of appropriate books, reports, back issues of periodicals and similar publications.

If you are willing to make contributions to this library, do not ship material at this time. Please write, giving full particulars, to Director Obregon:

Apartado Aereo 20307 Bogota, Colombia, S.A.

with an information copy to the TAB Office at IEEE Headquarters. Director Obregon will be in New York again at the end of March.

Special Notice: Conference Publications

The Joint RAB/TAB Technical Meetings Committee adopted a revised procedure effective January 1, 1973. The purpose of the revision is to encourage prompt shipment of the copies of conference publications needed to fulfill our immediate commitments to library subscribers (OOP-Option #1). An advisory memo was distributed to all Conference Committees and Conference Sponsors. This special notice will hopefully fill any gaps missed in the original distribution. Please pass on the word.

DELAYS IN SHIPPING CONFERENCE PUBLICATIONS WILL REDUCE THE PAYMENT TO THE CONFERENCE BY 1% OF THE LIST PRICE FOR EACH WEEK OF DELAY. SEND NOTICE OF SHIPMENT TO EDWIN MAC DONALD, TAB OFFICE, IEEE, 345 E. 47th ST., NEW YORK, NEW YORK 10017; (212) 752-6800 Ext. 436.

IEEE - TAB AD HOC COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY

ARE YOU CONCERNED?

The activities undertaken by the IEEE Committee on Social Implications of Technology will be successful only insofar as they stimulate personal involvement on the part of the IEEE members. It is important therefore to find out what the membership considers appropriate for discussion and study and how many are interested enough to really participate. Following is a list of general topics and specific sub-topics. It is recognized that the short titles are subject to various interpretations and that other IEEE units are already studying some of them. In order to get started, however, we request that you scale each of the 12 categories from 1 to 5, in the order of your special interest and in which you believe you have skills which can and should be brought to bear on behalf of society; note that 1 signifies definite interest, 5 none at all. Please star any of the sub-topics of special appeal. You may also wish to add a note suggesting any additional topics; negative as well as positive responses are, of course, invited.

The plan is to form working groups to study those topics for which substantial interest is indicated. Hopefully, the products of the study groups will be articles and IEEE positions papers.

AREAS OF CONCERN

1.	Ethics	7.	Socio-economic Employment Issues
2.	a. Code of Ethics for Engineers b. Personal Responsibility for One's Products c. Role of Professional Societies d. EE's Responsibility re The Viet Nam War		a. Professional Status for Engineers b. Employment Problems for EE's c. Retraining of EE's d. Job Security e. Opportunity for Social Problems Solving
-		8.	Education
	a. Instrumentation for Monitoring b. Engineering Methodology in Environmental Protection c. Development of National Energy Policy d. Fossil vs. Nuclear Power (resources, pollution) e. New Sources: Solar, Geothermal, Fusion f. Transmission of Electricity		a. Courses in Technology and Society for EE's b. Lecturers or Courses on Technology/Society for Non-Technical Students and Citizens c. Electrotechnical Aids to Education d. Computer Assisted Instruction Bioelectronics (Medical Engineering)
3.	Urban Technology		a. Social and Ethical Problems Implied by
	a. Transportation b. Traffic Control c. Urban Public Safety	10.	New Technology Applications of Systems Engineering and Information Theory to Social Systems
4.	Communications	11.	Humanization of Automation
	a. Impact of, on Developing Nations b. Impact of, on A Divided World c. For Greater Involvement of Public in Government	12.	OtherRemarks:
5.	National Security		
	a. D.O.D. R & D b. Electronics in limited warfare c. Electronics in strategic warfare d. Electronics and arms control e. Conversion from Military to Civilian Engineering		Your name, address and telephone No., if you wish to becoinvolved:
6.	Data Banks and Electronic Survillance		
	a. To Detect and Prevent Crime b. Threats to Privacy c. Classification and the Public Need-to-know		
			Return to: IEEE-TAB

345 East 47th Street
New York, New York 10017

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IEEE - TAB AD HOC COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY

Since any large organization such as the IEEE is held together by a small but dedicated group of members doing a large amount of work, it was decided that our committee could benefit from their practical experience on how to get things done within the IEEE, and their opinions of what they feel should be done. It was recognized that most of these activists do not have the time to become deeply involved with this committee; therefore this survey is being conducted by mail via the mailing list of "Electrical Engineeing."

Purpose

- Develop means to encourage and support professionalism and social responsability in the practice of engineering.
- Promote sensitivity to and understanding of the interaction between technology and society.
- Foster study, discussion and appropriate action involving IEEE members and others revelant to the technology/society interface.
- Promote the conception of means and implement programs for predicting and evaluating the impact of technology on society.
- 5. Take appropriate action to implement programs.

If you wish your name to be placed on C-SIT Newsletter, please complete th	n the mailing list for the is space:
NAME	
ADDRESS	

Scope

The scope includes:

- 1. Effects of present and probable new technology on society.
- 2. New technology needed to solve society problems.
- 3. Attitudes of society towards engineering.
- 4. Programs to explain technology to society.
- 5. Communication among engineers and between engineers and society on needs and concerns of society and capability of technology.
- 6. Impact of society on technology.
- 7. Professional and social responsibility in the practice of engineering.
- 8. Content and levels of existing educational programs and relevent new programs.
- Awareness of other activities directed at the technology/society interaction.

Return to: IEEE-TAB, 345 E. 47th St., New York, N.Y. 10017

10. Involvement of IEEE in the above.

Zip

SURVEY OF ACTIVE IEEE MEMBERS

l.	Given the purposes of this committee, are there scope items which you feel are:
	(Please enter paragraph #) a) appropriate #
2.	Are there additional scope items that you feel should be included? (please describe)
3.	What are the areas of overlap between this committee and other IEEE activities?
	Scope # Other IEEE Activity Individual member responsible
4.	Are you currently engaged in an IEEE activity that falls within our scope?NoYes
	(Please name activity and give person to contact for liaison purposes.)
5.	Were you engaged in a past IEEE activity that falls within our scope?NoYes (Please respond as in 4 above) What were the results?
6.	What would you like to see us do that is within our present scope?
7-	What types of actions do you feel the committee should engage in to accomplish its purposes?
8.	What IEEE resources would be useful to this committee?

shared by the IEEE Press, the Group/Society sponsor of the material and the journal in which the article originally appeared. If your Group/Society wants to sponsor a Book of Selected Reprints, make your wishes known. (Contact, Reed Crone)

A NEW SERVICE TO READERS is the idea behind Spectrum's inaugurating a bi-annual book of Direct Request Information Cards. It will contain requests for materials printed on post cards that are detachable for immediate mailing to the advertiser. The first issue is planned for April and the second for October. (Leads, Bill Saunders)

NEW MATERIAL FROM THE IEEE PRESS.
Just published is "Literature in Digital
Signal Processing: Terminology and Permutted Title Index." Sponsored by the
Audio and Electroacoustics Group, it
brought together material otherwise found
in many different places. Other recent
IEEE Press offerings include material on
Laser Theory and Integrated Optics. A
descriptive brochure is available for the
asking. (Ask, Reed Crone)

SPECIAL ISSUES OF "PROCEEDINGS OF THE IEEE." The editors plan to publish five or six special issues each year devoted to current fields of interest. The January issue is a special on the Applications of Superconductivity. The others planned for this year are High-Power Microwave Tubes, Ground Transportation for the Eighties, New Materials for Display Devices, Radio and Radar Astronomy, and Minicomputers.

HONORS

THE IEEE FIELD AWARD winners have been announced. Their names appear in Spectrum, Dec., pp. 8-10. The deadline for nominating candidates for this year's Field Awards is April 1. When asking for information, please specify in which award you are interested, as all of the forms are different. (Details, Una Lennon)

FELLOWS NOMINATION DEADLINE NEARS. If you think that someone deserves this honor and meets the requirements (See Bylaw 105.2), get a Fellows nomination form and file it by April 30. (See E.E. Dec., p. 3) This is a firm deadline so don't delay. (Application, Emily Sirjane) In December, the BofD elected 117 people to the grade of Fellow. Their names and contributions appear in Spectrum, Feb.

MC DOWELL AWARD winner will receive a \$1,000 honorarium. The ExecCom has authorized the Computer Society to return to the original amount. A related question of removing the distinction between the IEEE Field Awards and the Group/Society Awards has not been resolved by the ExecCom.

STANDARDS COMMITTEE is presenting medallions to those people who have made significant contributions to Standards development. Two people recently cited were Joe Werner of the National Electrical Manufacturers Association (NEMA) and Mario Pisciotta of the American National Standards Institute (ANSI). These presentations are made periodically to recognize the efforts of people working in the Standards field.

THE RETIREMENT OF DR. I. S. COGGE-SHALL as Editor of E.E. (a position he commanded since October 1966) was marked by a resolution of the BofD. They cited his excellent service to this organization, which included being a past President of IRE as well as his stint as Editor of this newsletter. The Institute also presented him with a Certificate recognizing him as a man of wit, perspective and humanity. (Did we make him blush yet?) Though he has reached the age of 76, will we let him peacefully retire? To use his own words against him, "it is important to keep piling the load on men who are used to carrying one. " And so we will.

STAFF ANNIVERSARIES. At the annual IEEE Christmas Party, Mary Halsey, Emily Sirjane and Rudolph Spatarella were honored for 25 years of service to IEEE and its preceding organizations. Those reaching 10 years with IEEE were Theresa Arcati, Anthony Canarozzi, Richard Emberson, Helen Hill, Helen Menzer, Alba Santos, Irene Sarullo and Ann Vitiello.

Tokens in appreciation of service were presented by General Manager Donald Fink, who already had his own 10 year tie clasp. (E.E. Dec., p. 7)

THE HARRY DIAMOND MEMORIAL AWARD REQUIREMENTS have been broadened to include people in the field of government service in any country where there is an IEEE Section. Prior recipients were restricted to those serving the U.S. Government. The Award is to a person serving a government for outstanding technical contribution, as evidenced by publication in professional society journals.

OUTGOING BofD MEMBERS: Granger, Abraham, Coates, Farris, Ginzton, Jespers, Nomura, Richardson, Sears, Wade, and Wolff were commended by their fellow Board members for their outstanding service to the Institute. We add our congratulations!

TOOLS AND AIDS

A new edition of "IEEE Membership Information and Services" is available. It tells about our various member grades, programs and organizational makeup. It even includes a membership application. (Copies, Emily Sirjane)

A ROSTER OF STATE AND LOCAL CHAIR-MEN in the NSPE liaison societies (IEEE is one) has been published. With this book, you can easily find out the names and addresses for the leaders in the various engineering societies for any region of the United States. This is especially useful if you are trying to get a coordinated effort on a legislative proposal. One book will tell you the names of all the people you would want to contact. (Copies, Mrs. Emma White)

IEEE/NCET GROUP FLIGHTS. The National Center for Educational Travel (NCET) is a group travel concessionaire for IEEE. NCET operates the entire program subject to IEEE staff surveillance. By contract between IEEE and NCET, participants sign waivers releasing IEEE from accident liability. Schedules and fares for

U.S. domestic and international flights can be obtained by writing National Center for Educational Travel, Inc., 1601 Connecticut Ave., N.W., Washington, D.C. 20009. Their phone number is (202) 232-2077.

FOR YOUR INFORMATION

MARK YOUR CALENDERS. IEEE Head-quarters will be closed on the following holidays: Washington's Birthday (Feb 19); Memorial Day (May 28); Independence Day (July 4); Labor Day (September 3); Columbus Day (October 8); Thanksgiving (November 22-23); Christmas (December 24-25) and New Year's (December 31, January 1).

ELECTRICAL CONTRACTORS TAKE NOTE. The Department of Justice has filed suit against NSPE charging violation of the Sherman Antitrust Law. The suit seeks to enjoin NSPE from continuing provisions in its Code of Ethics and policies declaring competitive bidding for engineering services to be unethical and unprofessional.

IT'S "IEEE INTERCON." When writing or speaking about our annual March convention, please call it by its proper name "IEEE INTERCON." Any other reference might cause confusion with another event not connected with the Institute.

CONGRESSIONAL FELLOW. As a result of the membership questionnaire conducted last year, a Congressional Fellow program is being developed. Costs would be shared by IEEE and the Fellow's employer. The Fellow would spend a year in Washington. (Further details, Spectrum Jan., p. 8)

THIRD CUSTOMER FOR OUR COMPUTER. It took three months to complete, but all the member records of the Association for Computing Machinery are now kept on our computer. (See E. E. Oct., p. 9.) This is the third non-profit, educational organization leasing our computer on a shared, noloss basis.

DEFEAT JOB BOREDOM! In the November 1, 1972 issue of EDN, Ernest Fair offered a suggestion on how to keep your job from becoming boring. He suggests that you

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constantly look for something new in what you are doing. "Pick out one procedure each day or week and try to approach it a little differently. Look for a better way to accomplish the desired result." Did I catch you yawning through this paragraph?

WELCOME ABOARD

Top-Side Directors:

A special salute to our 11 new Directors - Cotellessa, Kohli, Thompson, Saunders, Barrow, Whitelock, Read, Ingebretsen, Russell, Hornfeck and House.

New Section:

Saskatchewan Section (formerly Regina)

New Subsection:

Northern Virginia Subsection of the Washington Section, comprising Arlington, Clarke, Fairfax, Frederick, Loudoun and Prince William counties and the cities of Alexandria, Fairfax, Falls Church and Winchester.

New Group/Society Chapters in Sections:

Boston Sections: Vehicular Technology
Group Chapter.

Erie Section: Power Engineering Society Chapter.

Fort Wayne Section: Joint Circuits and Systems/Communications/Aerospace and Electronic Systems Chapter.

Reconstituted Chapters in Sections:

Cleveland Section: Joint Reliability/Industrial Electronics and Control Instrumentation/Engineering in Medicine and Biology Groups Chapter. (Reliability Group added to others)

Cleveland Section: Audio & Electroacoustics and Broadcasting Groups Chapter.
(formerly separate)

Washington Section: Joint Aerospace Electronic Systems/Geoscience Electronics Chapter. (formerly separate)

Staff:

Conrad "C.R." Muller, Standards Engineer, joins Sava Sherr's crew. He was in charge of the Standards office for I.T. &T.'s Avionics Division, when he left after 27 years of service. A Senior Member of IEEE, he was Chairman of the Standards Coordination Committee for Graphic Symbols and Designations until joining our staff. He holds both a B.S. and a M.S. degree in Electrical Engineering from the California Institute of Technology.

* * *

Centerfol	d pages:	Pages
White	- 1973 IEEE BofD & ExecCom	4A
	- Policies & Guidelines	4B-4D
Canary	- IEEE INTERCON Technical Schedule	4E
	- Short Course Schedule	4F
Green	- TAB	4G-4L

WASHINGTON LEGISLATIVE REPORT (Ralph Clark, Director, Washington Office)

Activities of the 92nd Congress

The 92nd Congress considered many subjects of interest to engineers. Several legislative proposals involved engineers in their professional role in the advance of technology and as citizens concerned with the continued growth and health of the economy. Other proposals would effect engineers personally in their employment, retirement, occupational safety, etc. Many bills would effect both aspects of an engineer's professional life. We need to keep in mind however, that only about 8% of the bills introduced ever become law.

Two bills, the proposed National Science Policy and Priorities Act of 1972, identified in the scientific-engineering community by the Senate No. S. 32 and the Technology Assessment Act of 1972 H.R. 10243 would have long range impact on science and engineering. S-32 failed of passage whereas, H.R. 10243, approved by Congress on October 4, was signed by the President on October 13 to create the Congressional Office of Technology.

S-32 National Science Policy Legislation

This proposal, the product of nearly 3 years work in the Senate Subcommittee on the National Science Foundation of the Committee on Labor and Public Welfare has been characterized as "a bill to put science and technology to work on the problems of society." It would establish as national policy that federal support of civil science research and engineering should be expanded to equal the support of defense research and engineering. And, further, that these levels should be maintained or exceeded except when inconsistent with overriding considerations of national security. Civil science is considered to be research and development to meet America's human needs in such priority problem areas as health care, poverty, public safety, pollution, unemployment, productivity, housing, education, transportation, nutrition, communications, and energy resources.

The legislation would charge the National Science Foundation with creating a new Civil Science Systems Administration to administer these programs. It would also establish an Advisory Council to advise the Director of the Administration and review the programs in support of civil science objectives. It would provide for retraining scientists and engineers idled by changes in government space and defense priorities to get them into civil science programs.

S-32 passed the Senate 70-8, providing authorization of slightly over \$1 billion to support these programs during fiscal years 1973, 1974, and 1975. The bill did not get out of Committee in the House but it is important because it is certain to be reintroduced very early in the next session in both the House and the Senate.

Technology Assessment Act of 1972

The Office of Technology Assessment (OTA) created by H. R. 10243 is intended to provide the Congress with adequate and timely information, independently developed, relating to the potential impact of technological applications to aid in determination of public policy on existing and emerging national problems.

The law charges the Library of Congress and the General Accounting Office with providing services and assistance within their respective fields of competence to OTA. It also provides for coordination with the National Science Foundation in matters relating to grants and contracts to avoid unnecessary duplication or overlapping research activities.

Other Legislation Under Consideration

Other legislation under consideration dealt with consumer product safety, procurement of Architectural and Engineering services by the Federal Government, amendments to the Occupational Health and Safety Act, conversion to the metric system and with many aspects of pension reform.