

CHICAGO
SECTION

IEEE

INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS



Scanfax

Another View



G. F. S.

WHICH DIRECTION, IEEE?

"I DON'T WANT TO RAISE MY SON TO BE A QUALIFIED ENGINEER. I WANT HIM TO BE A RICH PLUMBER."

Thanks to the Parts, Hybrid, and Packaging Newsletter.

WHICH DIRECTION, IEEE?

The petition for amendment of the Constitution of the IEEE, which was distributed with the ballots to all voting members, proposes to change the direction of IEEE. Is this a good thing? Has IEEE as a purely scientific, educational body outlived its usefulness? Before you vote aye or nay on the amendments, you should ask yourself in which direction IEEE should head, not just in the immediate future or in the next decade but in the next 50 years. Lest anyone protest that 50 years is too long a time to worry about, remember that the IRE celebrated its 50th anniversary several years before the merger; the AIEE had been in existence for more than 75 years.

Some of the questions that should be asked, are: Are IEEE members closer to physicists or physicians? Although the American Medical Association is usually brought up as the prototype of an organization that looks after its members' financial interests as well as disseminating medical news, remember that until recently most physicians were self-employed. Are most IEEE members self-employed? The American Association of University Professors is also frequently mentioned, but members of this group belong to at least one (and frequently more than one) purely scientific society in their own field. Does the American Physical Society lobby for its members? Do the American Library Association or the Linguistic Society of America lobby for their members? Should the IEEE? Should the IEEE *primarily* (the operative word) concern itself with the economic well-being of its members, even if this were to mean some curtailment of present technical activities? These are questions to be seriously considered before voting either way on the amendments.

The final question that must be settled in your mind before you cast a vote is: if the character of IEEE is changed, what *realistic* effect can this have on the current, or any future, employment situation for engineers? Are we seeing a time when there are too many engineers, particularly older engineers, for the jobs that society needs done? Do we have too many highly trained engineers when what so-

ciety needs is more technicians and more mechanics to service equipment? Do the pressing needs of society—those which a society is willing and eager to pay for—indicate that what we need are more biomedical engineers, more engineers skilled at designing practical mass transit systems and livable cities, starting from where we are today? Are today's electrical and electronics engineers the people to do these pressing jobs, or are we becoming mere technicians? These larger questions must be considered before we vote on the amendments.

The proposed amendments, and Dr. Victor Galindo's reasons for submitting them, are printed following this discussion. If you have any comments, send us a letter. We will publish as many of the letters as possible, within space limitations.

Ruth L. Oldfield
Executive Editor

Text of the Proposed Amendment PETITION FOR AMENDMENT OF THE CONSTITUTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

In accordance with Article XIV, Section 1, of the Constitution of the Institute of Electrical and Electronic Engineers, Inc. (The IEEE), the undersigned voting members of the IEEE do hereby petition the IEEE to promptly place the following proposed amendments of the Constitution before the voting members of the IEEE for their approval by ballot. We request that a date be designated for the counting of the ballots that is no later than thirty days before the end of Calendar Year 1971.

We propose that Article I, Section 2, be changed to read as follows:

"The *primary purpose* of the IEEE is to *promote and improve the economic well-being of the membership of the IEEE*. In order to meet this purpose, the IEEE shall define and adopt standards for the qualifications of electrical engineers, the IEEE shall promptly enact suitable bylaws, and the IEEE shall vigorously and judiciously pursue all other activities necessary or desirable for the attainment of this objective.

"Secondary purposes of the IEEE are scientific, literary and educational, directed toward the advancement of the theory and practice of electrical engineering, electronics, radio, allied branches of engineering or the related arts and sciences. Means to these ends are the holding of meetings for the reading and discussion of professional papers, the publication and circulation of works of literature, science and art pertaining thereto and any other activities necessary, suitable and proper for the fulfillment of these objectives and not inconsistent with the primary purposes."

We propose that Article I, Section 3, be changed to read as follows:

"All activities pertaining to the primary purpose of the IEEE shall have as their geographical scope the territories of the United States and those areas wherein the United States has territorial jurisdiction.

"All activities pertaining to the secondary purposes of the IEEE shall have as their geographical scope the entire world.

"The IEEE shall have its principal offices in the State of New York from which it shall carry out its general administrative functions in accordance with the New York Membership Corporations Law. Its publications activities are to be principally in the United States, as well as its largest membership meetings."

We propose that Article III, Section 3, be changed to read as follows:

"The term 'voting member' as used in this Constitution means those members of Member grade or above as defined in the Bylaws.

"Only those voting members who reside in and practice engineering primarily within the territorial jurisdiction of the United States are permitted to hold any IEEE office or vote upon any issue that deals with matters pertaining to the primary purpose of the IEEE."

DISCUSSION OF THE PROPOSAL

An Economic Role for the IEEE

The need for an organization of electrical engineers with at least the partial purpose of seeking the engineers' economic well-being is patently clear. All other professional groups devote themselves to their

membership's welfare. The American Association of University Professors' constitution is typical in that its "purpose is to advance standards, ideals, and the welfare of the academic profession." All trades organizations, skilled and unskilled, look after the economic interests of their membership. Church groups do the same. This is how our democracy works. Electrical Engineers however, are not functioning as other professions and special interest groups do, with the result that our economic destiny is not even influenced, much less controlled, by ourselves.

The present IEEE constitution has in fact limited economic action by the IEEE since its purpose is defined as being purely scientific and educational. The few actions taken by the IEEE this year have been deliberately designed, for example, to avoid altering our tax exempt status despite the fact that such an alteration would cost each member no more than \$2 per year in dues. The result has been a sterile and redundant association with NSPE, an organization which never has recognized the majority of Electrical Engineers as practicing Engineers and still offers only a second class non-voting membership to non-registered Engineers.

The engineering profession is sufficiently heterogeneous to warrant Electrical Engineers as being separately represented in lobbying activities, pension plans, portable fringe benefits, and hiring on an individual professional contractual basis. These and many other economic activities do support and need the support of the good scientific reputation of the IEEE. The IEEE has often lent its good scientific reputation, earned by all members, to industrial commercial interests. It is time it lent that reputation to the coadvancement of each individual member's scientific and economic interests. Although our present President, Dr. Mulligan, has worked hard and sincerely in this direction, he has by his own admission, been limited by our constitution, and, more important, may very well ultimately be succeeded by a negative minded President (as a result of our rather undemocratic nominating procedures).

Dr. Victor Galindo

OCTOBER 18-19-20

IEEE Fall Electronics Conference

IEEE is sponsoring a Fall Electronics Conference (FEC/71) at the Pick-Congress Hotel in Chicago October 18, 19, and 20. The FEC/71 consists of the technical program from the recently cancelled National Electronics Conference and Exposition (NEC/71), as well as an awards luncheon and a Monday dinner.

There will be 29 sessions during the three-day conference, with over 150 papers to be presented. The sessions are sponsored by eleven IEEE groups, with major participation by the Communication Technology group (ComTech) which calls its twelve sessions the ComTech Symposium/71.

The IEEE, in organizing the Fall Electronics Conference, is making use of the NEC leadership who had prepared the technical program. It is using the same dates and headquarters hotel originally scheduled for NEC/71. The latter had been planned to include an exposition at McCormick Place, but had to be cancelled for 1971 due to economic conditions.

FEC/71 will feature a Tuesday Awards Luncheon, a ComTech Group dinner on Monday, October 18; meetings of the administrative and other committees of the various IEEE Groups participating; and a special students program. Ladies activities will also be provided. Areas to be covered in the technical sessions include telephone, data and radio communications; telemetry; communications and information theory; antenna and microwaves environmental considerations; education; and engineering in medicine and biology.

Registration fees for IEEE members after October 1 will be \$20 and for non-IEEE members will be \$30. Registration includes a printed copy of the Conference proceedings.

CONFERENCE SESSIONS

Monday Morning, Oct. 18, 9:30 a.m.

1. Speech Analyzing Aids for the Deaf
Lincoln Room
2. Communications Technology:
Switching Systems I
Florentine Room
3. Hybrid Microelectronic Circuits
Grant Park Room

4. Combining Technology and Social
Relevance in Engineering
Washington Room
5. Advanced Technology for Future
Operational Satellites and
Earth Stations
Roosevelt Room

Monday Afternoon, Oct. 18, 2:00 p.m.

6. Communications Technology:
Antenna Systems for Long Haul
Microwave
Roosevelt Room
7. Communications Technology:
Switching Systems II
Florentine Room
8. Solid State Devices
Washington Room
9. Biomedical Engineering and
Instrumentation
Lincoln Room
10. Communications Technology:
Millimeter Wave and Optical
Communications
Grant Park Room

Tuesday Morning, Oct. 19, 9:30 a.m.

11. Communications Technology:
Automated Testing of
Communications Equipment
Florentine Room
12. Communications Technology:
Topics on Radio Systems
Roosevelt Room
13. Communications Technology:
Modern Telemetry Systems
Washington Room
14. Current Problems and Advances in
Transportation System Engineering
Grant Park Room
15. Environmental Quality
Lincoln Room

Tuesday Afternoon, Oct. 19, 2:00 p.m.

16. Communications Technology:
Advanced Educational Technology
—A Problem in Supervision
Lincoln Room
17. Communications Technology:
Nature's Effects on the Protection
of Telephone Plant
Florentine Room
18. Communications Technology: New
Developments in Commercial
Point-to-Point Microwave—
Panel Discussion
Roosevelt Room
19. Magnetic Components in Power
Conversion and Control
Washington Room
20. Water Quality Control Problems
Grant Park Room

Wednesday Morning, Oct. 20, 9:30 a.m.

21. Walsh Functions and Sequency:
Theory and Function
Florentine Room
22. Communications Technology:
Advanced Data Communications
Technique
Lincoln Room
23. Communications Technology:
Topics on Radio Systems
Roosevelt Room
24. Statistical Communication—
Application
Washington Room
25. Recent Advances in Antenna Theory
Grant Park Room

Wednesday Afternoon, Oct. 20, 2:00 p.m.

26. The Impact of Conversion to the
Metric System on Electronic
Equipment Reliability
Grant Park Room
27. Acoustoelectric Transducers for
Telephone Applications
Lincoln Room
29. Microwave Integrated and
Active Circuits
Roosevelt Room

New IEEE Administration Building

In a move designed to increase the efficiency of operations of the IEEE, the Board of Directors has authorized the construction of a new building in Piscataway Township, N.J. The building, planned to be completed in the spring of 1973, will house most of the administrative functions currently being carried out at its Headquarters in the United Engineering Center, New York City. Functions which require personal interaction with boards, committees, and members will remain in New York City at IEEE Headquarters.

Upon completion of the building and relocation of a portion of the staff, IEEE Headquarters will relinquish approximately 60% of the space it currently uses in New York City. It will retain two and one-half floors of space in the United Engineering Center, where its Headquarters operations will continue.

The new IEEE building will contain approximately 35,000 square feet of space in a single story and will be constructed of precast concrete, combined with bronze tinted glass, to provide an enjoyable working climate for the employees and an aesthetically pleasing exterior, compatible with the surrounding suburban area. Architects for the building are The Grad Partnership of Newark, N.J.

OCTOBER 6

Fox Valley Meeting

James Teppo and Robert Strecker will discuss SCR's and readout tubes when the Fox Valley Subsection tours National Electronics, Inc., Geneva, Ill., on October 6. Pre-meeting dinner will be at the Lincoln Inn, Route 31, in nearby South Batavia. Social hour, 6:00 p.m.; dinner, 7:00 p.m.; tour, 8:00 p.m.

OCTOBER 20

Bioengineering in Chicago

The next meeting in the series "Bioengineering in Chicago," sponsored by the Group on Engineering in Medicine and Biology, will be held at the Technological Institute, Lecture Room 4, Northwestern University, 2145 Sheridan Road, Evanston, on Wednesday, Oct. 20. Dinner will be served in the cafeteria, Sargent Hall, 2245 Sheridan Road, at 6:00 p.m. Be sure to arrive early as the cafeteria line closes at 6:15 p.m. IEEE has reserved tables for its members and guests.

From 7:00 to 9:00 p.m., a broad review of the research activities of the bioengineering program at Northwestern University will be presented. Laboratory tours and demonstrations and a discussion period will follow the formal session.

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