



PROPOSAL FOR A REORGANIZATION OF THE AIEE

*As per our telephone  
conversation of  
11/15/55:*

1.3.35

INTRODUCTION

I have been active in the AIEE for many years having served on numerous committees in section activities and in technical committee activities. I have been very much impressed with the personalities and the abilities of engineers I have met in these numerous assignments. I have followed with a great deal of interest the various schemes for reorganizing the engineering profession. This is a very noteworthy undertaking but it will take time.

Perhaps now is the time while we are in the mood for organizing the engineering profession to see if the AIEE truly represents all fields of electrical engineering as we claim, or hope it does. We go to great efforts to point out that the AIEE is the only engineering society where electrical engineers from all fields can meet and discuss their related problems. We tell students we are the only universal electrical engineering society; that all electrical engineers have equal representation in the society; that we are interested in all technical electrical subjects and point with pride to our new publication policy.

THE PROBLEM

Are all of these statements true? To a certain extent they all are. We are to a certain degree a universal electrical engineering society. Every member regardless of his field of technical interests has the same voting privilege. We are interested in all technical electrical subjects. Our publication policy is excellent. The bi-monthly publications are fulfilling a long felt need for most fields of electrical engineering. In fact, it appears as if the technical committees have done a better job in expanding their activities to encompass all fields of electrical engineering to a greater extent than our sections have in interesting engineers from these various fields in taking an active part in their section activities.

How convincing is it to students to have a man from the power field tell them about the golden opportunities of the AIEE for all electrical engineers in radio, television, telephony, telegraphy, instruments, computers, etc. and emphatically emphasize that AIEE is not primarily a society for power engineers? We say this is true but then the very embarrassing question is raised—how many fields of electrical engineering are represented on the Board of Managers of the Institute.

As near as I can determine from the AIEE Yearbooks, the officers and members of the board, excluding the secretary, are and have been divided approximately as follows:

	<u>Power</u>	<u>Telephone</u>	<u>Education</u>	<u>Misc.</u>
1955-56	63%	19%	3%	15%
1950-51	62%	4%	23%	11%
1945-46	54%	15%	27%	4%
1940-41	46%	20%	23%	11%



If this is correct, then it appears that we are not as universal an electrical engineering society now as what we used to be, as far as the administrative side is concerned.

How about the other phases of this universal problem? The number of bi-monthly transactions printed for the three different classes per issue are as follows:

Power, Apparatus and Systems	11,000	38%
Applications and Industry	8,000	28%
Communications and Electronics	10,000	34%
	<u>29,000</u>	<u>100%</u>

This shows that the interests of our members are fairly evenly distributed.

The total number of papers presented last year (1954-55) by these same groups of divisions was:

	<u>Transactions</u>	<u>Conference</u>	<u>Total</u>	<u>Total %</u>
Power, Apparatus and Systems	220	104	324	37
Applications and Industry	80	97	177	21
Communications and Electronics	<u>162</u>	<u>200</u>	<u>362</u>	<u>42</u>
	462	401	863	100 %

The estimated division of papers this year (1955-56) is:

	<u>Transactions</u>	<u>Conference</u>	<u>Total</u>	<u>Total %</u>
Power, Apparatus and Systems	179	102	281	38
Applications and Industry	49	101	150	20
Communications and Electronics	<u>154</u>	<u>171</u>	<u>315</u>	<u>42</u>
	382	374	746	100 %

The total number of conferences held last year in which the AIEE took an active part and those planned for this year are:

	<u>1954-55</u>	<u>1955-56</u>
Power, Apparatus and Systems	1	2
Applications and Industry	10	8
Communications and Electronics	<u>13</u>	<u>14</u>
	24	24

Fortunately, as can be seen from the last three tables our technical activities are much more universal than our distribution of administrative power.

#### THE QUESTION

There are several questions which naturally arise following these disclosures. The most important one being, - Is there anything wrong with our present system?



There are several factors which must be considered in trying to answer this all important question.

1. Our present board members bend over backwards to ensure equally fair treatment of matters involving any or all fields of electrical engineering.
2. Most of the AIEE members in the power field are just as anxious to distribute administrative power as any of the engineers in the other fields.
3. Would any other administrative set-up broaden our technical activities and result in universal membership especially in the electronics area? Apparently, even now, one-third of our members are interested in Communications and Science.
4. Does AIEE have as members, men from all the major fields of engineering capable of serving as Board members?
5. Years ago the Institute of Radio Engineers was formed because a group of engineers was not satisfied with the AIEE.
6. About ten years ago the Instrument Society of America was formed and is a fast growing society in the instrument field. It encompasses the mechanical, electrical and chemical instrument fields.
7. About three years ago Association for Computing Machinery was organized in the computer field. It is a going and growing society.
8. A nucleonics society is being formed.
9. Several years ago the National Telemetering Forum was formed in the telemetering field. At that time I was chairman of the AIEE committee on Instruments and Measurements and persuaded the leaders of NTF to take over the leadership of the AIEE Subcommittee on Telemetering. This was done and NTF ceased to exist.

Another very important question - Would any type of AIEE organization have prevented these off-shoots? That is a tough one. Any answer is open to question; but, in the case of the NTF, permitting this group of engineers to administer their own affairs certainly helped to keep them in the AIEE.

Most people feel that those from the same "walks of life" those who are working in the same field of engineering know more about the problems of that field, than someone from an entirely different field of engineering. If this is true, shouldn't each major field of engineering be represented on the Board by a representative who is actively participating in that field? In sports, a baseball commissioner is an expert in baseball, not an expert in tennis.



### A PROPOSED ORGANIZATION

How can an organization be constituted which will provide equal representation for all fields of electrical engineering without causing any major upheavals in the AIEE? The proposal is as follows:

1. Directors - There should be eleven directors. One director should represent each of the following fields of electrical engineering:
  1. Power
  2. Industry
  3. General Applications
  4. Communications
  5. Science and Electronics
  6. Computers
  7. Instruments and Regulators
  8. Nucleonics

These should be nominated and elected by the AIEE members in exactly the same way as is presently in force. There should be divisions in the Committee on Technical Operations corresponding to these fields. No change in publication policy is needed.

The three remaining directors should be by appointment. They are -

9. Chairman of Planning and Coordinating Committee
10. Chairman of Sections Committee
11. Chairman of Committee on Technical Operations.

You don't run a business without the top operating men sitting in on executive meetings.

2. Vice-Presidents - There should be the same number as at present, one for each district. They should be nominated and elected the same way as at present with only one stipulation -- a candidate for vice-president must be of a different field of electrical engineering than the incumbent Vice-president and from a different field than the junior past vice-president. Fields of electrical engineering are as previously defined under Directors.
3. President - Nominated and elected same way as present but with the same stipulation as that for vice-president.

An organization like this would not only ensure top level representation for all major fields of electrical engineering, but would also force the Sections to expand their activities to all fields of engineering in order that they may obtain candidates to propose for the top level AIEE positions.



CONCLUSION

The plan as disclosed has both advantages and disadvantages, but it is a step in the right direction. A different set of "fields of electrical engineering" might be desirable and other modifications might be necessary but the writer feels that it is time for a change.

I will be glad to discuss this plan in greater detail with any interested parties.

*W. R. Clark. 9/30/55*

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