

# Merger Discussions Open Opportunities and Challenges

*President W. H. Chase says in the following message:*

To the Members of AIEE:

I hope each of you will read and carefully consider the Resolution approved by your Board of Directors at its recent meeting and printed on these pages. When, in the next few months, the objective it establishes is translated into concrete plans satisfactory to your Board, you will make the final decision for AIEE with respect to the proposed consolidation with IRE. I hope that decision will be based on an informed appraisal of the purposes held in common by the two Institutes and how best they may be achieved.

That the purposes of AIEE and IRE are essentially the same is revealed not alone by the words in their Constitutions, but more convincingly by the extent of their collaboration in student branches, conferences, standards, membership exchange, section activities, education studies and curriculum accreditation, and other less formal but important professional work. This collaboration has developed from a growing appreciation of the common scientific basis for the wide variety of applications encompassed by electrical and electronic technology and from an inherent engineering distaste for wasteful duplications of effort and expense. As the technological interests of the members of the two Institutes overlap more and more, the management of this collaboration becomes more complex. It, therefore, appears that the time has arrived to make the effort to complete an organizational unity that will, to the greatest degree, match, promote, and serve the growing technological unity.

The complete design and construction of a single new organization embodying the best features and traditions of the present two Institutes with flexibility to serve a rapidly growing profession, is a problem of huge dimensions and exciting challenges. I will say more about these dimensions and challenges; but first, a word about the way the design is being developed.

## DESIGN FOR MERGER

Good design starts with the recognition of a need and a concept of how to meet it. As long ago as June 1956, the AIEE Board of Directors recorded by formal vote its desire "... to work toward the ultimate goal of merger with IRE." Subsequent discussions, formal and informal, between the officers of the two Institutes led to extensive areas of collaboration and ultimately arrived at the conclusion that the logical culmination appeared to be consolidation.

A design for consolidation will be prepared and brought to the two Boards in February. If approved, it will be put before you, the members, for a ballot in the spring. In addition to the joint committee named in the Resolution, subcommittees of present and past officers of the two Institutes will formulate plans for the consolidation. The study will include the following components of the two organizations: 1) Assets, Resources, Finances; 2) Professional Groups, Technical Committees, and Standards Activities; 3) Publications and Editorial Policies; 4) Districts, Regions, and Sections; 5) Student Activities; 6) Extra-Society Relations; 7) International Relations; 8) Constitution, Charter, and Membership; 9) Staff Organization and Services. The mere enumeration of these major components of the merger problem says something about its scope. Its size can be appreciated only by looking at the dimensions of the two Institutes and what the sum of their resources, membership, and activities can mean.

## DIMENSIONS OF MERGER

From virtually any viewpoint, the size, scope, and combined potential usefulness of the merged interests of AIEE with IRE would bring a new dimension to engineering societies in the United States.

In Table I it will be seen that, omitting 28,347 students and approximately 6,000 members who now belong to both societies, the combined membership was close to 121,000 in the first part of 1961. This is greater than the combined roster of the civil, mechanical, and chemical engineering societies, and would make the new engineering Institute by far the largest in the world.

The combined assets of the two societies, according to the latest published reports, were \$6,497,415.

Table I: Comparative Total Membership by Grades

Grades		Number of Members		
AIEE	IRE	AIEE	IRE	TOTALS
Honorary Member	—	9	—	9
Fellow	Fellow	1,694	896	2,590
Member	Senior Member	16,126	10,001	26,127
Associate Member	Member	36,690	47,114	83,804
TOTAL VOTING MEMBERS		54,519	58,011	112,530
Affiliate	Associate	1,994	12,806	14,800
SUB-TOTALS		56,513	70,817	127,330†
		Students	10,685	28,347
TOTALS		67,198	88,479*	155,677

\* 90,577 as of August 31, 1961

† Approximately 6,000 members belong to both Societies.

Sources: AIEE: Organization Manual 1961-1962; figures as of April 30, 1961  
IRE: Report of the Secretary, 1960; figures as of Dec. 31, 1960

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# THE RESOLUTION

*Approved by the Board of Directors of IRE October 18, 1961*  
*Approved by the Board of Directors of AIEE October 20, 1961*

Whereas the Board of Directors of the American Institute of Electrical Engineers and the Board of Directors of the Institute of Radio Engineers have concluded that the advancement of the theory and practice of electrical and radio engineering and the educational and scientific objectives of both Institutes may be better served by merger or consolidation of the two Institutes into one organization in which all present members would be included, and in which they would enjoy the same rights and privileges now conferred upon them by their separate organizations, and it appearing that such consolidation would not adversely affect the Institutes or their members, now therefore be it

**RESOLVED**, that the Board of Directors of AIEE deems it advisable in accordance with the stated objectives of AIEE, to move actively toward the consolidation of the activities and organization of AIEE with those of the Institute of Radio Engineers (IRE), by consolidation or otherwise, provided that the legal and operational problems incident to such consolidation can satisfactorily be resolved, and

**FURTHER RESOLVED**, that Warren H. Chase, Clarence H. Linder, Elgin B. Robertson, and B. Richard Teare, Jr., be and they hereby are appointed to join with Lloyd V. Berkner, Patrick E. Haggerty, Ronald L. McFarlan, and Haraden Pratt, when appointed by the Board of Directors of IRE, as members of a committee, which shall be authorized and directed to undertake such studies as they shall deem necessary and appropriate to determine the feasibility, practicability and form of such consolidation, and to make a report thereon to the Boards of the two Institutes not later than February 15, 1962, with a view to submission to a vote of the memberships of the two Institutes and consummation, if so approved, by January 1, 1963, and

**FURTHER RESOLVED**, that such committee shall be authorized to meet with the officers, directors and representatives of the two Institutes to consider the proposed amalgamation of the two groups and to make available to such persons such documents and information relating to AIEE as such committee deems advisable under the circumstances, and

**FURTHER RESOLVED**, that this committee be directed to prepare, in consultation with representatives of AIEE and IRE, a proposed Constitution and Bylaws and such other documents as counsel may recommend with a view to submission thereof to the Boards of Directors of the two Institutes on or before February 15, 1962, and

**FURTHER RESOLVED**, that the proper officers and directors of the AIEE be and hereby are authorized and directed to cause a copy of these resolutions to be delivered to the Board of Directors of the Institute of Radio Engineers, and

**FURTHER RESOLVED**, that these resolutions shall become effective as soon as the President of the American Institute of Electrical Engineers has been notified in a form satisfactory to him and to counsel of the AIEE that the Board of Directors of the Institute of Radio Engineers has adopted resolutions substantially to the effect of these presents.

IRE carries in its assets a figure for its three buildings, land, furniture and fixtures at cost, at Fifth Avenue and East 79th Street, New York, of \$1,549,-751. AIEE is housed in the new \$12½ million, 20-story United Engineering Center, New York. AIEE has a headquarters staff of about 100; IRE, 175.

The latest year's combined total income was \$5,659,008; combined total expenses, \$5,273,743. Both societies operate "in the black."

Recent annual publication figures are as follows: AIEE: *Electrical Engineering*, editorial 1,108 pages, advertising 756 pages; *Transactions-Bimonthlies*, 2,807 editorial pages only. Additionally, AIEE pre-printed 10,600 pages of authors' manuscripts, plus more elaborate publication of 13 sets of papers and reports, 1,672 pages; and a 10-year Cumulative Index, 400 pages; Grand Totals: editorial 16,587; advertising 756. IRE: *Proceedings of the IRE*, edi-

Table II:

	Attendance	Days	Sessions	Papers
AIEE — General Meetings				
Winter, New York	5,000	5	110	500
Summer, movable	2,000	5	65	270
Pacific	700	4	20	70
Fall, Mid-West	1,800	5	50	200
SUB-TOTALS	9,500	19	245	1,040
— District Meetings (4)				
Combined figures	2,200	8	74	285
TOTALS, GMS-DMs	11,700	27	319	1,325
IRE — Convention, New York	67,419*	4	54	257
Wescon, California	35,000*	4	40	158
TOTALS	102,419	8	94	415

\* Including Exposition attendance

torial text 2,325 pages, advertising, 2,485 pages; PG Transactions, 8,616 pages; Convention Records, 3,396 pages; with Student Quarterly, Directory, etc.; Grand Totals: editorial, 15,338; advertising 3,272.

AIEE obtains its papers through the operations of 67 Technical Committees and 214 Subcommittees covering that many phases of electrical-electronic interest, but some subjects such as radio in less detail than IRE. These 67 Technical Committees also control the papers review and classification-for-publication machinery; and do standards work for AIEE and ASA Sectional Committees.

IRE performs papers procurement, and placement in Convention sessions and Symposia, through the Professional Groups' organizations. Review of papers is accomplished by reference to selected individuals on a large roster of Editorial Reviewers appointed for purpose.

AIEE holds four General Meetings and an average of four District Meetings, in eight different U.S.-Canadian cities annually. IRE holds its International IRE Convention and Show annually in New York, and participates in the annual Wescon Electronic Show and Convention with movable San Francisco-

Los Angeles location. Data on typical recent meetings are shown in Table II.

Both societies encourage and hold related exhibits in connection with their sole and joint conferences, largest of which is through joint sponsorship of the National Electronics Conference in Chicago. AIEE in 1962 will hold its first exposition in connection with a General Meeting, but IRE has a long history of successful shows in connection with its annual International IRE Convention at New York and more recently with the IRE Wescon Convention in San Francisco-Los Angeles. The 1961 Show brought together 850 exhibitors, 25,000 items, and 67,000 visitors, at over two miles of booths.

AIEE holds at annual, biennial, or irregular intervals 53 Special Technical Conferences, of which 20 are exclusively AIEE-sponsored and 20 are jointly sponsored with IRE; 27 institutions appear also as co-sponsors in 33 conferences. It will be noted that AIEE-IRE integration in the field of conferences has not awaited merger: IRE held or participated in 59 conferences or symposia in 1960, including four in Europe.

IRE participation in symposia is a prerogative of nationally organized Professional Groups (PG's) of which there are 28. An IRE member may belong to as many Professional Groups as he chooses. Thus there are 89,114 memberships (including 6,729 students) in the 28 PG's. PG fees vary from \$1.00 to \$6.00 per year. Under the affiliate plan, 500 scientists and medical doctors belong to PG's in their specialties.

In their foreign operations, both societies integrate Canada with the United States. Apart from Canada, AIEE has 2,424 foreign members, IRE 2,728. IRE has 11 Sections in South America, Europe, Asia, and Africa; AIEE none. Both Institutes have reciprocity arrangements with British societies. Both are active in the work of the International Electrotechnical Commission and other international standardization and scientific bodies, IRE to a greater degree than AIEE. Except for Section operations, and liaison with outside organizations in Canada, the foreign contacts of the integration would be chiefly additive.

Both IRE and AIEE, have a thoroughly organized Section, Subsection, Branch, and District organization. The corresponding numbers are shown in Table III.

Table III:

	AIEE	IRE
Districts — Regions	15	8
Number of Sections	119	110
Number of Subsections	77	31
Number of Student Branches	167	211
Number of Professional Groups	—	28
Number of Section Technical Discussion Groups	277	—
Number of P/G Chapters	—	288

Sources: AIEE: Annual Report, 1960-1961

IRE: Proceedings of the IRE, September 1961

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Of AIEE's 167 and IRE's 211 Student Branches, 127 are already jointly operated; the others are independent. But in only 24 schools do the tasks of the AIEE Counselor and the IRE Representative reside in the same faculty member. Merger would erase anomalies introduced by dual representation.

A recognized overlapping in the field of standards activities was coped with a year ago by the formation of the Joint Standards Committee of AIEE-IRE. In AIEE 55 Technical Committees engage in standards work. The Standards Committee makes AIEE appointments to 78 ASA Sectional Committees and to 5 ASA Standards Boards. IRE has 26 Technical Committees which with their 120 Subcommittees and task groups, carry on the standards work. IRE is directly represented on 34 Sectional Committees of ASA and sponsors 3 of them. Both societies prepare non-overlapping standards, AIEE chiefly in the field of power and its applications, IRE in radio.

### CHALLENGES OF MERGER

The prime opportunity of merger is to create from the components of the two societies a new association with a usefulness, to its combined membership, greater than the sum of its parts.

Since the services rendered to the public by member engineers are directed through the electrical and electronic industries they serve, these industries should be well served by the contemplated merger; and their continued support warranted by the steps taken by members to unify and concentrate their efforts. No longer would it be necessary for industry to weigh the merits of electrical vs. electronic claimants. Amalgamation would be a living symbol of the unity of electrical-electronic engineers, and represent the clearing away of artificial barriers between the manufacture and distribution of electrical power and its end uses, in quantities great and small, in frequencies low and high.

Welcome adjustments on the campus would presumably follow the cessation of the lively competition which has existed between AIEE and IRE Student members. The flow of undergraduates and graduates into the appropriate Institute grades would be far smoother than heretofore. With the advent of unity, the tie-in between universities and the amalgamated society ought to be less inhibited, more productive. In areas of research, exchange of technical knowledge, and establishment of optimum curricula, the one consolidated Institute should be more helpful.

By merger both components would pool the strength of their philosophies regarding the integration of science and engineering. Services rendered by engineers to scientists, and in the reverse, bring mutual and collateral public benefits. Such integration is a "must" in an atomic age.

By merger AIEE members would stand to benefit from IRE's astuteness in establishing identifiable activities and sizable membership overseas. Electrical

Power components of the consolidation will receive increased challenge to international endeavor heretofore existent and significant but by comparison restricted.

As one of the Founder Societies, AIEE would bring to the new Institute a status in the community of engineering heretofore missing in the IRE program. The achievement by merger of unity in electrical-electronic engineering should immeasurably strengthen the leadership hitherto assumed by AIEE in establishing a pattern for unity of the entire engineering profession. It is thought that effort salvaged through synthesizing the separate administrative duties of the present Boards of Directors, headquarters staffs, and committees working on similar affairs in the two societies can profitably be channeled into broader programs which will strongly promote engineering as a profession.

Section and Subsection operations already include considerable AIEE-IRE joint activities. Adjustments would have to be made to insure that the Section served the needs of the combined power and electronic components of the spectrum of electrical interests. The same may be said for the co-ordination of the local Technical Discussion Groups and the Professional Group Chapters; in IRE these are affiliated with the Institute-wide Professional Groups; in AIEE these are not so affiliated although a current movement in establishing Institute Technical Groups contemplates local chapters.

Publications of the two societies are their principal items of expense, advertising in them an important source of revenue, and their distribution to all members and groups of members the major service commanding membership. The determination of the character and distribution of a merged Institute's publications is therefore one requiring great wisdom in planning. Not only is wider coverage of the professional field involved, but the mechanics of publication should ideally afford individual members a means of individual selection of desired material.

If and as the societies merge their histories along with their plans, member engineers will take pride in the past public achievements and benefits of their new confreres. Representative of both societies are frequently consulted by Government. IRE members have made many contributions to the safety of life at sea, and have helped the government bring order to a chaotic and hard-pressed radio spectrum. AIEE members have made constant contributions to safety from fire and resuscitation of life after shock, and to the mitigation of air pollution in our industrial cities. A long list of awards made by both parties testifies to the public benefactions of their respective members. The preservation and wise adaptation of the systems of awards would be a welcome responsibility assumed by the consolidation.

In planning the in-phasing of the two societies, attention must be given to the differences in termi-

nology to avoid misunderstandings. The application of "Member" and "Associate" to different corresponding grades of membership is a case in point:

<u>GRADE</u>	<u>AIEE</u>	<u>IRE</u>
Honorary	Honorary Members	
I	Fellows	Fellows
II	Members	Senior Members
III	Associate Members	Members
IV	Affiliates	Associates
V	Student Members	Students

Another difference is in the names of publications. AIEE's primary reference annual bound publication is its *Transactions*; IRE's is its *Proceedings*. AIEE produces three bimonthly magazines containing pre-publication of annual *Transactions* articles. IRE refers to the periodicals issued by its Professional Groups as its *Transactions*. AIEE's general circulation monthly and secondary reference bound annual is *Electrical Engineering*; IRE's *Proceedings* is both its general circulation monthly and primary bound annual.

In AIEE, Technical Committees concern themselves principally with papers procurement, review and classification, and placement in meeting sessions. In IRE, Technical Committees are primarily engaged in Standards work.

In AIEE, the name Institute Technical Groups (ITG's) has been chosen to designate a new activity which in IRE has been the well-established system of Professional Groups (PG's).

AIEE members surveying the IRE membership constituency will perhaps be interested in the background resulting in the broad nonvoting, subprofessional stratum of 12,806 Associates in IRE, compared with the 1,994 Affiliates in AIEE. The reason is partly historical, because radio first brought to amateurism the technical complexities which rendered engineering information intelligible and useful to younger laymen. It was found by experience that a reasonably broad base of subprofessionals did the society no professional harm; that their youth con-

tributed an enthusiastic reception of the unfolding radio and electronic arts; that many Associates, over the years, qualified for the higher grades by the same standards of professional experience applied to non-college graduates by the Founder Societies, and that as more complex radio-electronics (such as television, radar) became widely applied to daily living and the military, amateurs were supplemented by technicians in the Associate grade in construction, installation, maintenance, repair; as draftsmen, laboratory assistants, and engineering sales people. Traditionally, AIEE has not followed a similar philosophy in terms of electricians, contractors, maintenance forces and laboratory and field technicians, as power application and controls have become equally complex and widespread, as is evident from the figures. A similar situation exists in relation to the chartering of Student Branches. Among the IRE's 211 Branches are a number located at other than recognized degree-granting institutions. These divergent philosophies may require reconciliation in a merged operation.

However, I would like to make it very clear that the Joint Committee created by the Resolution and its subcommittees are not in any way engaged in, nor intended to engage in, bargaining for the ascendancy of any point of view or the interests of any group. We should all appreciate this chance, seldom given to mature men or organizations, to make a fresh start and meet opportunities seemingly past and lost. I am confident we have the wisdom and statesmanship to carry the job through. If successful, it will have a profound effect on the whole engineering profession. It is a step worthy of the careful consideration and thoughtful expression of the opinion of every member of AIEE. I hope that in the coming months you will discuss it in your Sections and Committees and let me have your opinions both individually and collectively. And that, when the time comes, each member will cast an informed and considered ballot.

Cordially yours,  
W. H. CHASE, *President*

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