

# REGION 8 CENTENNIAL REVIEW

### IEEE

Issued with the Region 8 Newsletter – February 1984 – on behalf of Members in Europe, the Middle East and Africa

DEDICATED TO ALL IEEE MEMBERS - PAST, PRESENT AND FUTURE

# N THE BEGINNING..

This poster announced the first international exhibition to be held by the American Institute of Electrical Engineers. This 'Centennial Review' celebrates the progress that has been made in the electrical and electronic engineering fields since then.

The text printed below is taken from Volume 1 of the American Institute of Electrical Engineers Transactions, 1884. It embodies the symbolism of the poster – the application of electricity (a new dawn) gives light to the world and is shared by the world wherever and whenever it can benefit mankind. Such was the philosophy that lay behind the foundation of the Institute.

We celebrate not only a century of electrical progress but also a hundred years of transnational interchange of knowledge which the IEEE's founding fathers so wisely encouraged when they prepared to receive their 'co-laborers' from other nations.



'An International Electrical Exhibition is to be held in Philadelphia next autumn, to which many of the famous foreign electrical savants, engineers, and manufacturers will be visitors; and it would be a lasting disgrace to American electricians, if no American national electrical society was in existence to receive them with the honors due from their co-laborers in the United States.'

### A CENTENNIAL MESSAGE FROM THE IEEE PRESIDENT



Dr Richard J. Gowan

his year, the IEEE is celebrating its first century of service to engineers and scientists throughout the world. Our roots go back to 1884 when electrical engineers, inventors and scientists formed the American Institute of Electrical Engineers (AIEE), so that they could appropriately receive visitors from other countries who would attend the international electrical exhibition to be held that year in Philadelphia, Pa. The first technical meeting was held on October 7–8 at the Philadelphia exhibition to share technical developments and ideas in the then emerging electrical industries of the 19th century. A century later, the IEEE has grown into the world's largest professional technical organization with approximately 250,000 members who still share the founders' dedication to technical and professional exchange.

During 1984, IEEE members will celebrate the achievements of this first century and prepare for a second century of service. Members in Region 8 should take special pride in the many accomplishments of engineers and

scientists in Europe, Africa and the Middle East which have improved the practice of electrical, electronics and computer engineering. Contributions by these individuals have helped improve the quality of life worldwide. Region 8 has contributed much to improving the services available to our members. Development of co-operative agreements between national electrical engineering societies and the IEEE have led to the presentation of major international conferences to encourage technical sharing. The vitality of meetings and exchange of information in Sections throughout this Region attests to the great importance members place on their IEEE membership. I encourage all leaders in Region 8 to join with other IEEE leaders in planning for our second century of service. I ask that all our leaders survey the membership from January to April 1984 to better determine services needed from the IEEE. In addition, leaders from each Section are invited to attend a special Centennial Congress of Sections on May 14–15 in Boston, Ma., to formulate recommendations based on membership surveys. These recommendations will be presented to the Board of Directors later to aid them in their planning for our second century.

Thank you for the honor of serving as your Centennial President, and my best wishes to all IEEE members as we enter our centennial year.

Best regards,

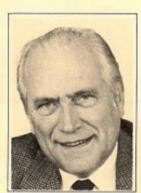
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Richard J. Gowan, President

### A CENTENNIAL MESSAGE FROM THE REGION 8 DIRECTOR

y thoughts on our Centennial turn to the future in which we can bring the benefits of IEEE publications and other services to more and more scientists and engineers, and so make a truly transnational contribution to progress. There is also the broadening outlook on continuing education through which we can enable students in many countries to add to their academic qualifications, and so produce a wider background and understanding on which to base their subsequent experience.

Our Centennial is an opportunity to look back and this Review does so admirably. But let our look back be short and not divert us from looking forward. Yesterday is history and today is nearly gone. It is tomorrow that matters.



Karsten E. Drangeid, Director, Region 8

### THE START OF REGION 8 AND ITS SECTIONS

egion 8 was created when the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE) merged in January 1963 (see the article "Our First 100 Years" in this Review). However, its seeds were planted by the IRE which, unlike the AIEE, was a transnational society with Sections outside the U.S.A.

The IRE initially had seven Regions in the USA., Canada was Region 8, and there were no Regions in other countries, although Sections existed. However, on 12 May 1962, shortly before the merger, the IRE created Region 9 consisting of twelve Sections in other countries, seven of these Sections being in Europe.

At the time of the merger it was agreed that the IEEE should continue the transnational concept. The IRE type of structure was adopted, but revised: the number of Regions in the U.S.A. was reduced from seven to six; Canada became Region 7; Europe, the Middle East, and North Africa became Region 8 on 8 January 1963, which is therefore the date on which our Region was founded; other parts of the world were covered by Region 9. The present Regional structure resulted from later changes: in 1966 South America became Region 9, with Region 10 covering other parts of the world; finally in 1981 the remainder of Africa became part of Region 8.

The following Sections now in Region 8 were founded before Region 8 was created (the name of the Founder Chairman is given in brackets):

October September May May December	1955 1959 1959	Israel (F. Ollendorf) Egypt (H. M. Mahmoud) Benelux (H. Rinia) North Italy (A. Marino) Switzerland (G. C. Gross)	October July		France (J. R. Pernice) United Kingdom & Republic of Ireland (UKRI) (R. C. G. Williams)
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The following Sections were formed after the creation of Region 8:

March '	1963 Norway (not recorde	
April	1963 Germany (not record	ed) December 1972 Poland (A. K. Smolinski)
March	1965 Sweden (not recorded	d) August 1977 South Africa (P. A. Calvert)
May	1966 Middle & South Italy	January 1978 Nigeria (F. S. Atiya)
	(not recorded)	December 1979 Austria (K. R. Richter)
April	1968 Spain (R. T. Segovia)	June 1981 Saudi Arabia (R. B. Tucker)
August	1968 Denmark (G. Bruun)	December 1981 Portugal (M. de Medeiros
February	1970 Iran (A. Tchamram)	Silva)
March	1970 Greece (J. D. Flambou	
June	1971 Yugoslavia (M. Grude	

Unfortunately early records of Region 8, and of many Sections, no longer exist. I am most grateful to IEEE Assistant Historian Robert Casey for providing the information given above after research into IRE Proceedings, IEEE Annual Reports of the Secretary, and IEEE Organization Rosters.

The following is a record of the Directors of Region 8:

1963/64 H. Rinia	1971/72 P. G. Jespers	1979/80 D.C.J.Poortvliet
1965/66 J. Lebel	1973/74 C.R.Russell	1981/82 W. E. Proebster
1967/68 R. C. G. Williams	1975/76 F. L. H. Stumpers	1983/84 K. E. Drangeid
1969/70 R. P. Wellinger	1977/78 E E Bolinder	1905,01 R. E. Drangeld

### **ACKNOWLEDGEMENTS**

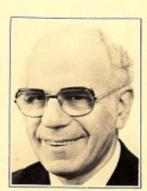
his Centennial Review results from the work of a number of IEEE volunteers and staff who have devoted their time, interest and enthusiasm for well over a year.

Robert C. Winton (the Secretary of Region 8) who has played a leading rôle in the development of Region 8 from the time of its formation, not only conceived the idea of the Review but is the author of the various articles.

William H. Devenish (Newsletter Editor) and Robert C. G. Williams (a past Director of Region 8 and Newsletter Production Editor) assisted in its realisation and we are indebted to Gretta Gouriet (Assistant Production Editor) for the layout and presentation.

Finally, we express our appreciation for financial assistance provided from the Centennial Fund and for the supply of information from the IEEE Center for the History of Electrical Engineering and the Managing Editor of the "Officers' Newsletter".

Publication, printing and mailing has been carried out by County Secretarial Services with technical assistance from the printers, Seven Corners Press.



Robert C. Winton Secretary, Region 8

## **OUR FIRST HUNDRED YEARS**

he fact that the IEEE Centennial Year falls in 1984 is really due to Michael Faraday. His discovery of electromagnetic induction in 1831 opened the road to electrical power engineering. It led Siemens to construct a dynamo in 1867, and to the opening of the world's first generating station, constructed by Edison, in New York in 1882.

During this period the number of electrical power engineers grew rapidly, and inevitably they needed an organisation to bring them into contact with each other, to represent them, to produce standards, and to keep them up-to-date with technical developments. And so, on 13 May 1884, the first General Meeting of the American Institute of Electrical Engineers (AIEE) was held in New York. Seventy-nine years later the AIEE was to become a parent of the IEEE.

The best-known of those at this first General Meeting of the AIEE was Thomas Edison, who was elected a Vice-President. Another world renowned engineer at the meeting was Elihu Thomson, whose inventive mind produced hundreds of patents, and who invented electrical welding. He was elected AIEE President in 1888. The first AIEE technical meeting was held in Philadelphia on 7–8 October 1884, and the first paper was presented by Edwin J. Houston and had the title "Notes on Phenomena in Incandescent Lamps".



Four years after the AIEE was founded occurred an event whose implications and applications grew slowly at first and then with an explosive speed which engulfed the world, and which in the process led to the creation of the second parent of the IEEE. In 1888 Herz produced electromagnetic waves. Once again a new road was opened, and this time it led to wireless, television, telecommunications, radar. Among the early travellers along this road were Tesla, Heaviside, Marconi, Fleming, Lee de Forest, until on 13 May 1912 radio engineers in America, driven by much the same needs as electrical power engineers twenty-eight years earlier, held the founding meeting of the Institute of Radio Engineers (IRE) in New York.

Technical advances were to change the American national society structure yet again. In the 1930s the word "electronics" became part of the vocabulary of electrical engineering, and the growing number of electronics engineers tended to join the IRE. During the 1940s and 1950s innovations in instrumentation, and new developments such as control and telemetry, produced larger and larger areas of common technical ground between power engineers and radio and electronics engineers. These changes, together with a common basic engineering and science education and similar requirements for professional development, made the logic of a merger between the AIEE and the IRE irresistible. On 1 January 1963 they officially joined together to form a single society – the IEEE.

From the time it was founded the IEEE adopted a transnational policy of actively promoting understanding, co-operation, and technical updating among electrical, electronics, and computer engineers and scientists in every part of the world. It was this policy which in 1963 led to the formation of Region 8, with Dr. Herre Rinia of the Philips Research Laboratory in Eindhoven, The Netherlands, as the first Director.

In looking back over our first hundred years, what can we regard as the IEEE's most important contribution? It is, I suggest, the pre-eminence of our technical publications and of our conferences and meetings. It is fascinating to consider that every modern invention, every modern discovery, and the whole of modern technology were available to Rameses, to Julius Caesar, to Charlemagne, to Benjamin Franklin. All the necessary materials were available; their times simply lacked the essential know-how. Similarly, every advance which lies in mankind's future is available today, but we simply lack the know-how. A very large part of the value of the IEEE's contribution to the next hundred years will lie in its ability to continue to promote the transnational exchange of information.



Representing Benjamin Franklin's kite a Wheatstone bridge, a galvanometer and a statement of Ohms Law



The Kite shape retained with the inside representing the link between electricity and magnetism



Again the link between electricity and magnetism but the initials also represent current, resistance and force



The amalgamation of 2 and 3 without initials so that the symbol would be understood transnationally