

A short history of IRE Region 9 / IEEE Region 8

Martin J. Bastiaans

25th October 2023

Abstract

A history of IEEE Region 8 spanning its origins from the IRE Region in Europe, through the IRE/AIEE merger forming the IEEE and subsequently to the present day Region 8 consisting of Europe, the Middle East, and Africa. Included are personal reflections of past directors, committee meetings and conferences, student activities, award recipients from Region 8, and Region 8 history papers presented at HISTELCON 2012. A number of archival documents are attached as appendices, including ephemera and minutes from early Region 8 Committee meetings.

| |
|--|
| <p>This paper is a living document and is updated whenever new material becomes available. Feel free to send any comments and suggestions for additions to m.j.bastiaans@ieee.org.</p> |
|--|

Contents

| | | |
|----------|--|-----------|
| 1 | Preliminary steps towards and the early history of a new Region | 7 |
| 1.1 | Information taken from the Benelux Section archives | 7 |
| 1.2 | IRE Region in Europe – Bruce B. Barrow | 11 |
| 1.3 | A Region’s ‘Birth Certificate’ | 12 |
| 1.4 | The start of Region 8 and its Sections – Robert C. Winton | 13 |
| 1.5 | IRE/AIEE Merger – Bruce B. Barrow | 13 |
| 2 | The later history of IEEE Region 8 | 16 |
| 2.1 | The creation of IEEE Region 10 and the extension of Region 8 | 16 |
| 2.2 | The Eastward spread of Sections in Region 8 – Tony Davies | 16 |
| 2.3 | Yugoslavia Section from 1971 to 1992 – Baldomir Zajc | 18 |
| 2.4 | The present IEEE Region 8 Sections | 21 |
| 2.5 | Geographic Unit statistics at year end | 24 |
| 2.6 | Membership statistics at year end | 26 |
| 3 | IEEE Region 8 Operating Committees and Appointed Members | 28 |
| 3.1 | Operating Committees | 28 |
| 3.2 | Appointed Representatives – until 1997 | 34 |
| 3.3 | Appointed Coordinators and Subcommittee Chairs – 1998–2006 | 35 |
| 3.4 | Appointed Coordinators and Subcommittee Chairs – 2007–2012 | 36 |
| 3.5 | Appointed Coordinators and Subcommittee Chairs – 2013–2018 | 37 |
| 3.6 | Appointed Coordinators and Subcommittee Chairs – 2019–2022 | 38 |
| 3.7 | Appointed Coordinators and Committee Chairs – 2023 | 39 |
| 3.8 | Past Directors gallery | 40 |
| 4 | Personal reflections of Past Directors | 42 |
| 4.1 | Jean D. Lebel (Director 1965-1966) | 42 |
| 4.2 | Rolf Remshardt (Treasurer 1983–1998, Director 1999–2000) | 42 |
| 4.3 | Anthony C. Davies (Director 2003–2004) | 45 |
| 4.4 | Baldomir Zajc (Director 2005–2006) | 49 |
| 5 | IEEE Region 8 Committee meetings | 51 |
| 6 | IEEE Region 8 conferences | 53 |
| 6.1 | EUROCON 71 – Reminiscences by Fritz Eggimann | 55 |
| 6.2 | Conference activities in Region 8 – The first 30 years – Jacob Baal Schem | 56 |
| 6.3 | Conference activities in Region 8 – After the first 30 years – Baldomir Zajc | 58 |
| 7 | Student activities | 61 |
| 7.1 | The early years of IEEE Region 8 Student Activities – until 1984 | 61 |
| 7.2 | Student Activities Committee meetings – until 1984 | 63 |
| 7.3 | Student Branch (and GOLD / Young Professional) Congresses | 63 |
| 7.4 | Cross-Sectional Student Branch (and GOLD / Young Professional) Congresses | 64 |
| 7.5 | Student Paper Contest Finals | 64 |
| 8 | IEEE Award recipients from Region 8 | 76 |
| 8.1 | Medal of Honor | 76 |
| 8.2 | IEEE Major Medals | 76 |
| 8.2.1 | Alexander Graham Bell Medal | 76 |

| | | |
|--------|--|----|
| 8.2.2 | Edison Medal | 76 |
| 8.2.3 | James H. Mulligan, Jr. Education Medal | 77 |
| 8.2.4 | Medal for Engineering Excellence | 77 |
| 8.2.5 | Medal for Environmental & Safety Technologies | 77 |
| 8.2.6 | Founders Medal | 77 |
| 8.2.7 | Richard W. Hamming Medal | 78 |
| 8.2.8 | Heinrich Hertz Medal | 78 |
| 8.2.9 | Medal for Innovations in Healthcare Technology | 78 |
| 8.2.10 | Jack S. Kilby Signal Processing Medal | 78 |
| 8.2.11 | Lamme Medal | 79 |
| 8.2.12 | Jun-ichi Nishizawa Medal | 79 |
| 8.2.13 | Robert N. Noyce Medal | 79 |
| 8.2.14 | Dennis J. Picard Medal for Radar Technologies and Applications | 79 |
| 8.2.15 | Medal in Power Engineering | 80 |
| 8.2.16 | Simon Ramo Medal | 80 |
| 8.2.17 | John von Neumann Medal | 80 |
| 8.2.18 | IEEE/RSE James Clerk Maxwell Award | 81 |
| 8.2.19 | IEEE Frances E. Allen Medal | 81 |
| 8.3 | IEEE Recognitions | 81 |
| 8.3.1 | Honorary Membership | 81 |
| 8.4 | IEEE Service Awards | 82 |
| 8.4.1 | Richard M. Emberson Award | 82 |
| 8.4.2 | Haraden Pratt Award | 82 |
| 8.5 | IEEE Corporate Recognitions | 82 |
| 8.5.1 | Corporate Innovation Recognition | 82 |
| 8.5.2 | Ernst Weber Engineering Leadership Recognition | 83 |
| 8.5.3 | Theodore W. Hissey Outstanding Young Professional Award | 83 |
| 8.6 | IEEE Prize Paper Awards | 83 |
| 8.6.1 | W.R.G. Baker Prize Paper Award | 83 |
| 8.6.2 | Donald G. Fink Prize Paper Award | 84 |
| 8.6.3 | Leon K. Kirchmayer Prize Paper Award | 84 |
| 8.6.4 | Browder J. Thompson Memorial Prize Paper Award | 84 |
| 8.7 | IEEE Technical Field Awards | 84 |
| 8.7.1 | Biomedical Engineering Award | 84 |
| 8.7.2 | Cledo Brunetti Award | 84 |
| 8.7.3 | Components, Packaging, and Manufacturing Technology Award | 85 |
| 8.7.4 | Control Systems Award | 85 |
| 8.7.5 | Electromagnetics Award | 86 |
| 8.7.6 | James L. Flanagan Speech and Audio Processing Award | 86 |
| 8.7.7 | Fourier Award for Signal Processing | 86 |
| 8.7.8 | Andrew S. Grove Award | 86 |
| 8.7.9 | William M. Habirshaw Award | 87 |
| 8.7.10 | Herman Halperin Electric Transmission and Distribution Award | 87 |
| 8.7.11 | Masaru Ibuka Consumer Electronics Award | 87 |
| 8.7.12 | Award in International Communication | 88 |
| 8.7.13 | Internet Award | 88 |
| 8.7.14 | Reynold B. Johnson Data Storage Device Technology Award | 89 |
| 8.7.15 | Reynold B. Johnson Information Storage Systems Award | 89 |
| 8.7.16 | Richard Harold Kaufmann Award | 89 |
| 8.7.17 | Joseph F. Keithley Award in Instrumentation and Measurement | 89 |

| | | |
|--------|--|-----|
| 8.7.18 | Mervin J. Kelly Award | 90 |
| 8.7.19 | Gustav Robert Kirchhoff Award | 90 |
| 8.7.20 | Koji Kobayashi Computers and Communications Award | 90 |
| 8.7.21 | Eli Lilly Award in Medical and Biological Engineering | 90 |
| 8.7.22 | Morris E. Leeds Award | 91 |
| 8.7.23 | Morris N. Liebmann Memorial Award | 91 |
| 8.7.24 | Jack A. Morton Award | 91 |
| 8.7.25 | William E. Newell Power Electronics Award | 91 |
| 8.7.26 | Daniel E. Noble Award for Emerging Technologies | 92 |
| 8.7.27 | Frederik Philips Award | 92 |
| 8.7.28 | Photonics Award | 92 |
| 8.7.29 | Emanuel R. Piore Award | 92 |
| 8.7.30 | Judith A. Resnik Award | 93 |
| 8.7.31 | Robotics and Automation Award | 93 |
| 8.7.32 | Frank Rosenblatt Award | 93 |
| 8.7.33 | David Sarnoff Award | 93 |
| 8.7.34 | Marie Sklodowska-Curie Award | 94 |
| 8.7.35 | Donald O. Pederson Award in Solid-State Circuits | 94 |
| 8.7.36 | Innovation in Societal Infrastructure Award | 94 |
| 8.7.37 | Charles Proteus Steinmetz Award | 94 |
| 8.7.38 | Eric E. Sumner Award | 95 |
| 8.7.39 | Leon K. Kirchmayer Graduate Teaching Award | 95 |
| 8.7.40 | Undergraduate Teaching Award | 95 |
| 8.7.41 | Nikola Tesla Award | 95 |
| 8.7.42 | Kiyo Tomiyasu Award | 96 |
| 8.7.43 | Vladimir K. Zworykin Award | 96 |
| 8.7.44 | Transportation Technologies Award | 96 |
| 8.7.45 | Lotfi A. Zadeh Award for Emerging Technologies | 97 |
| 8.8 | Presidents' Change the World Competition | 97 |
| 8.9 | Member and Geographic Activities Board Awards | 97 |
| 8.9.1 | Outstanding Section Award | 97 |
| 8.9.2 | Larry K. Wilson Transnational Award | 97 |
| 8.9.3 | Innovation Award | 98 |
| 8.9.4 | Leadership Award | 98 |
| 8.9.5 | Achievement Award | 99 |
| 8.9.6 | Young Professionals (GOLD) Achievement Award | 100 |
| 8.9.7 | IEEE GOLD / Young Professionals Affinity Group Hall of Fame Award | 101 |
| 8.9.8 | Supporting/Sustaining Friend of IEEE Member and Geographic Activities Awards | 101 |
| 8.9.9 | Diversity & Inclusion Award | 102 |
| 8.10 | Educational Activities Board Awards | 102 |
| 8.10.1 | Meritorious Achievement in Accreditation Activities | 102 |
| 8.10.2 | Meritorious Achievement in Continuing Education | 102 |
| 8.10.3 | Meritorious Achievement in Informal Education | 102 |
| 8.10.4 | (Meritorious Achievement Award in) Pre-University Education | 102 |
| 8.10.5 | Major Education(al) Innovation | 103 |
| 8.10.6 | Meritorious Service to IEEE EAB | 103 |
| 8.10.7 | Employer Professional Development | 103 |
| 8.10.8 | Section Professional Development | 104 |
| 8.10.9 | EAB Vice President's Recognition Award | 104 |
| 8.11 | Joint Awards Established with National Societies | 104 |

| | | |
|-----------|--|------------|
| 8.11.1 | France – SEE/IEEE Joint Brillouin-Glavieux Award | 104 |
| 8.11.2 | Iceland – VFI/IEEE Joint Electrical Engineer of the Year Award | 105 |
| 8.11.3 | South Africa – SAIEE/IEEE Joint Distinguished Volunteer Award | 105 |
| 8.12 | Region 8 Awards | 105 |
| 8.12.1 | Region 8 (Section) Volunteer Award | 105 |
| 8.12.2 | Region 8 Outstanding Section Award | 106 |
| 8.12.3 | Region 8 Outstanding GOLD / Young Professionals Affinity Group (of the year) Award | 107 |
| 8.12.4 | Region 8 GOLD / Young Professionals Exceptional Volunteer Award | 108 |
| 8.12.5 | Region 8 Chapter of the Year Award | 108 |
| 8.12.6 | Region 8 Student Branch Chapter of the Year Award | 110 |
| 8.12.7 | Larry K. Wilson Regional Student Activities Award | 111 |
| 8.12.8 | Clementina Saduwa Award | 112 |
| 8.12.9 | Outstanding Women in Engineering Section Volunteer Award | 112 |
| 8.12.10 | Outstanding Women in Engineering Student Volunteer Award | 112 |
| 8.12.11 | Outstanding Women in Engineering Section Affinity Group of the Year Award | 112 |
| 8.12.12 | Outstanding Women in Engineering Student Affinity Group of the Year Award | 112 |
| 8.12.13 | Outstanding Section SIGHT of the Year Award | 113 |
| 8.12.14 | Outstanding Student Branch SIGHT of the Year Award | 113 |
| 8.13 | Life Members Awards | 113 |
| 8.13.1 | Outstanding Life Members Affinity Groups | 113 |
| 8.13.2 | IEEE Global Life Members Affinity Group Achievement Award | 113 |
| 8.13.3 | IEEE Regional Life Members Affinity Group Achievement Award | 113 |
| 8.13.4 | IEEE Regional Life Members Individual Service Award | 114 |
| 9 | Miscellaneous lists | 115 |
| 9.1 | Region 8 News | 115 |
| 9.2 | IEEE Milestones in Region 8 | 118 |
| 9.3 | Miscellaneous | 128 |
| 10 | History papers presented at HISTELCON 2012 | 130 |
| 10.1 | Researching the roots of IEEE Region 8 | 131 |
| 10.2 | Setting up the basis for Region 8 | 139 |
| 10.3 | Conferences, technical societies and development – A history of synergy | 142 |
| 10.4 | ... Go East, Region 8, Go East... | 145 |
| A | Minutes of the meeting of the IRE Inter-Sectional Committee | 151 |
| B | Birth certificate | 153 |
| C | IEEE Regions after the merger | 154 |
| D | Invitations/agendas for the IRE Region 9 Committee meetings | 155 |
| D.1 | Towards the inaugural meeting on Wednesday 6 June 1962 | 155 |
| D.1.1 | Letter of 3 May 1962 – Ronald L. McFarlan | 155 |
| D.1.2 | Memorandum of 16 May 1962 – Bruce B. Barrow | 156 |
| D.1.3 | Memorandum (meeting invitation) of 30 May 1962 – Bruce B. Barrow | 158 |
| D.2 | Towards the second meeting on Monday 22 October 1962 | 160 |
| D.2.1 | Notice – John H. Gayer | 160 |
| D.2.2 | Meeting invitation of 8 October 1962 – John H. Gayer | 160 |

| | | |
|----------|--|------------|
| E | Minutes of the two IRE Region 9 Committee meetings | 162 |
| E.1 | Wednesday 6 June 1962 – the inaugural meeting | 162 |
| E.2 | Monday 22 October 1962 | 164 |
| F | Invitations/agendas for the early IEEE Region 8 Committee meetings | 166 |
| F.1 | Monday 22 April 1963 – the first IEEE Region 8 Committee meeting | 166 |
| F.2 | Monday 4 November 1963 | 167 |
| F.3 | Monday 27 April 1964 | 168 |
| F.4 | Monday 26 October 1964 | 169 |
| F.5 | Monday 26 April 1965 | 171 |
| F.6 | Tuesday 7 September 1965 | 172 |
| G | Minutes of the early IEEE Region 8 Committee meetings | 174 |
| G.1 | Monday 22 April 1963 | 174 |
| G.2 | Monday 4 November 1963 | 176 |
| G.3 | Monday 27 April 1964 | 178 |
| G.4 | Monday 26 October 1964 | 181 |
| G.5 | Monday 26 April 1965 | 186 |

1 Preliminary steps towards and the early history of a new Region

All indented parts are transcriptions of documents that are available in the IEEE Benelux Section archives or in some other locations. Scanned copies of these documents can be provided upon request. Unfortunately, the quality of the original documents is very bad; while they can of course be scanned, optical character recognition is almost impossible. During the transcription, the rough lay-out of the original document has been maintained, but no effort has been made to correct grammatical errors and remove inconsistencies.

The research in the Benelux Section archives led to the following important dates with respect to the foundation of our Region.

- 14 February 1962 informal meeting of the Inter-Sectional Committee, Europe
4 Sections: Benelux, France, Geneva, Italy
- 6 March 1962 sending of a petition by the Benelux Section to the IRE Board of Directors to form a new Region, with its territory based on the European Broadcasting Area defined in the Radio Regulations of the International Telecommunication Union; the European Broadcasting Area includes the Western part of the USSR and the territories bordering on the Mediterranean.
- 24 April 1962 approval of the new Region by the IRE Executive Committee
- 24 May 1962 approval of the new Region by the IRE Board of Directors
- 6 June 1962 inaugural meeting of the IRE Region 9 Committee – 12 attendees
6 Sections: Benelux, Egypt (not present), France, Geneva, Israel, Italy
- 22 October 1962 second IRE Region 9 Committee meeting
7 Sections; new Section: United Kingdom & Eire
- 8 January 1963 re-approval by the IEEE Board of Directors (after the merger):
renaming of IRE Region 9 to IEEE Region 8
- 22 April 1963 first IEEE Region 8 Committee meeting
8 Sections; new Section: Norway
- 1 January 1970 Greenland was added to Region 8, and all the countries that were partly in Region 8 (the USSR and countries in North Africa) are now considered to belong completely to Region 8.
- 1 January 1981 The rest of Africa was added to Region 8.

1.1 Information taken from the Benelux Section archives

The idea for an IRE Region Europe arose at the end of 1959 in the Benelux Section, especially on the initiative of Bruce B. Barrow,¹ at that time the Section's first Secretary/Treasurer (till August 1961, but remaining a member of the Section's Executive Committee until his returning to the USA in summer 1962). The idea was actually brought up when Lloyd V. Berkner, a member of the IRE Board of Directors, attended the first (!) Benelux Section meeting on 3 October 1959. In a subsequent letter to Lloyd Berkner dated 4 October 1959, Bruce Barrow states:



We believe it would be very helpful to us to have Europe (including Russia) designated as Region 9. Boundaries might be drawn to include Egypt and Israel Sections. Such a step would give Europe a Regional Director, and might accelerate the formation of other European Sections, with whom we could effectively cooperate.

However, at that time, the IRE Board of Directors decided that the time was not yet ripe.

One year later, the idea was brought to the attention of the IRE President, Ronald L. McFarlan, in a letter by Bruce Barrow, dated 17 October 1960.

¹From 1958 till 1961 on leave with SHAPE Air Defense Technical Center, The Hague, Netherlands, where he was studying improved methods of transmitting digital data over fading radio paths.

Secondly, I wonder if you would care to bring up the question of establishing Region 9 with the Board of Directors. I know that it was discussed about a year ago, and that the Board decided the time was not yet ripe. Since you have left here, I have given the question a good deal of thought, and would like to argue that the time is now ripe, or at any rate that it will be by the time the necessary preliminaries are taken care of.

At the same time, in a letter to Lloyd Berkner, dated 18 October 1960, Bruce Barrow writes:

I am pushing Dr. McFarlan, quite informally, to bring up once more the question of establishing Region 9 in Europe, so you may hear something of this in one of your next meetings. My points in favor of such a move are, briefly, as follows:

1. 1961 would be the year to elect the regional director of an odd-numbered region. Even if the Board moved now, he would not take office until Jan. 1962.
2. Europe has roughly 1500 IRE members, far more than Canada had when it was given regional status.
3. We need a region to promote the orderly development of sections in Europe. Our problems are not the same as those of other sections.
4. The Region would be appropriate for the coming united Europe (see editorial).²
5. We need the Educational Committee of a region.

In his answer of 10 November 1960, Ronald McFarlan expressed his sympathy with the idea of a 'European Region' and promised to discuss the issue with the IRE Executive Committee.

Support was then sought from the Italy Section (established, like the Benelux Section, 13 May 1959) by sending a letter on 28 November 1960, with a positive reply on 22 December 1960, and from the Geneva Section (established 13 December 1960). There was a general feeling not to take any formal step towards the IRE Executive Committee until a France Section (established 17 October 1961) would have been formed. Since this took more time than expected, the Benelux Section sent a formal petition to the IRE Executive Committee on 3 March 1961, followed by a similar petition from the Italy Section on 16 March 1961 and one from the Geneva Section, as well. The text of the petition reads as follows:

PETITION

To the Executive Committee of the Institute of Radio Engineers, Inc.

From the Executive Committee of the Benelux Section of the IRE:

WHEREAS

- there are at present more than 1500 IRE members in western Europe, as well as three active IRE Sections;
- we believe these members and Sections to be entitled to direct representation by a European member on the IRE Board of Directors;
- there is an increasing and frequently expressed desire on the part of the European IRE members for international meetings and opportunities for professional contacts;
- there is similarly a desire among members in several countries to establish new IRE Sections;
- the presence in Europe of a representative of the IRE Board of Directors would help to ensure that future expansion of European IRE activities would be carried out in an orderly manner, to the benefit of both the IRE members and the various European radio and electrical engineering societies;

WE HEREBY PETITION

the Executive Committee of the IRE, in the name of the Executive Committee of the Benelux Section,

- to go on record as favoring the establishment without delay of IRE Region 9 in western Europe;

²Bruce Barrow refers to a guest editorial for the March issue of the Transactions on Communication Systems, in which he would like to write on the expansion of the IRE activity in Europe.

- to draft the changes in the IRE Bylaws necessary to effect the establishment of this Region and to present these changes to the Board of Directors for action at their meeting in May 1961;
- to fix the composition of a provisional Regional Committee;
- and to authorize a meeting of this provisional Regional Committee for April 1961 for the purpose of nominating one or more candidates for the office of Regional Delegate-Regional Director as provided for in the IRE Bylaws, and of conducting such other business as may seem desirable.

The Hague, 3 March 1961

H. Rinia, Chairman
The Benelux Section of the IRE

B.B. Barrow, Secretary-Treasurer
The Benelux Section of the IRE
Postbus 174, The Hague, Netherlands

In the mean time, on 4 January 1961, IRE had formed a special committee (the IRE International Activities Committee) to study the international aspects of the IRE, which was chaired by IRE's former president Ronald L. McFarlan and with Herre Rinia, the first Benelux Section Chair (until 1962), as one of its members. In March 1961, after having received the petitions mentioned earlier, this committee decided to visit various European countries (in particular UK, France, Netherlands, Norway, Sweden, Denmark, Germany, Switzerland, Italy) at the end of June 1961,

“... to find out whether local societies would welcome such a region and, if so, to try and smooth over any stumbling blocks and establish cooperation.”

(Quotation taken from a letter by Herre Rinia to Bruce Barrow, dated 28 March 1961). See also a partial transcript of the letter of 21 April 1961 by Ronald McFarlan to Bruce Barrow below:

George Bailey's letter of April 19, 1961 to you regarding the Executive Committee action on the petition for the formation of Region 9 in Western Europe has just come to my attention. Since it was upon my recommendation that the Executive Committee deferred action on the petition I owe you an explanation.

Starting in London on June 19th the IRE Ad Hoc Committee for Activities Outside Existing Regions will visit in sequence England, France, the Netherlands, Norway, Sweden, Denmark, Germany, Switzerland and Italy. This committee comprises, in addition to myself as Chairman, E. Finley Carter, John T. Henderson, Herre Rinia and Ernst Weber. Among the matters to be discussed will be the formation of new IRE Sections and their areas, Professional Group activities, relations with the national societies of these countries, and so forth. It has been my feeling that formation of Region 9 should await the results of the forthcoming European discussions of this committee.

...

Let me also say, if I may, that I personally favor the formation of a Region 9 in Western Europe after the necessary exploratory work has been accomplished. This is one of the topics that will be high on the agenda when we meet in June.

Unfortunately, the IRE Executive Committee was not yet convinced of the desirability of establishing a new Region before the end of 1961. This was caused by the upcoming merger between IRE and AIEE, which led the IRE President Lloyd V. Berkner to the statement in December 1961 “... that this matter should be postponed until the negotiations with AIEE are completed.” See a partial transcript of the letter of 20 December 1961 by Lloyd Berkner to Bruce Barrow below:

The idea of a quick formation of an IRE Region 9 at this time represents a great many plusses and minuses. In the balance, it would be my judgement that this matter should be postponed until the negotiations with AIEE are completed, since I believe it highly probable that a new society would recognize the need for Region 9, and it could be organized as a part of the shift to a new society.

Prior to a meeting of the IRE International Activities Committee in New York on 27 March 1962, Herre Rinia, member of that committee, called for an informal meeting in Geneva on 14 February 1962 of representatives of the four existing IRE Sections in Europe (Benelux, France, Geneva and Italy) and some people from countries where the forming of a Section was foreseen: Germany (established 12 July 1963; invitation sent to Prof. W.J. Kleen, Munich) and Sweden (established 29 March 1965; invitation sent to Dr. C.E. Granqvist, Stockholm). One of the motions that came out of this meeting was that the new region should consist of all of Greater Europe (and *only* Greater Europe, thus explicitly excluding such territories as South America and the Far East), where Greater Europe is to correspond by definition to the European Broadcasting Area, defined in the Radio Regulations of the ITU, 1959 (Article 5, Nos. 126, 131 and 133): bounded on the West by the Western boundary of Region 1, on the East by the meridian 40° East of Greenwich and on the South by the parallel 30° North so as to include the western part of the USSR and the territories bordering the Mediterranean, with the exception of the parts of Arabia and Saudi-Arabia included in this sector. In addition, Iraq is included in the European Broadcasting Area. The minutes of this Inter-Sectional Committee meeting are available in Appendix A.

A final petition to establish such a region (see below) was then sent to the IRE Executive Committee by the Benelux Section on 6 March 1962, and the Sections in France, Geneva and Italy were asked to do the same.

Board of Directors of the Institute of Radio Engineers
1 East 79 Street
New York 21, N.Y.
U.S.A.

Dear Sirs,

The Executive Committee of the Benelux Section wishes to ratify the action taken by its representatives at the meeting of the I.R.E. Intersectional Committee, Europe, held on 14 February 1962 in Geneva to discuss matters of interest to the European I.R.E. Sections and to report to the I.R.E. Committee on International Activities. It, therefore, submits the following

PETITION.

We, the undersigned, officers and executive Committee members of the Benelux Section of the Institute of Radio Engineers, hereby petition the Board of Directors of the Institute of Radio Engineers to establish a Region that will compass the territory of Greater Europe.

Because the purpose of such a Region would be to provide representation of the European I.R.E. members on the Board of Directors and to coordinate I.R.E. activities in Europe we request that territories in the Far East and in South America not be included in the new Region. We suggest that the territory of the new Region be based on the European Broadcasting Area defined in the Radio Regulations of the I.T.U. which area produced a definition of Europe that has proved practical and that has been internationally agreed to for certain telecommunication purposes. The European Broadcasting Area includes the Western part of the U.S.S.R. and the territories bordering on the Mediterranean.

H. Rinia, Chairman
G.J. Siezen, Secretary-Treasurer
B.B. Barrow
W. Metselaar
H.P. Williams
H.R. van Nauta Lemke
C.B. Broersma

As a result, the IRE Executive Committee approved the new region, Region 9, on 24 April 1962, and the IRE Board of Directors gave its final approval on 24 May 1962. The inaugural meeting took place in Geneva on Wednesday 6 June 1962, with invitations sent to 6 Sections: Benelux, Egypt (established 8 September 1955), France, Geneva, Israel (established 5 October 1954) and Italy. The first meeting was attended by 12 people: H. Rinia, G.J. Siezen,

H.P. Williams, B.B. Barrow (Benelux), J. Lebel (France), J.H. Gayer, W. Gerber, W. Baumgarten (Geneva), E.H. Frei (Israel), G.P. Tarchini, V. Svelto (representing E. Gatti, Italy), and R.L. McFarlan (IRE Headquarters); Egypt was not represented. Herre Rinia was elected as Region 9 Director, and he appointed E. Gatti as Vice Chair and J.H. Gayer as Secretary/Treasurer. The second meeting, with UK & Eire as a new Section (established 10 July 1962), took place on Monday 22 October 1962, again in Geneva.

Transcripts of the invitations/agendas of the first two IRE Region 9 Committee meetings are available in Appendix D; the transcripts of the minutes can be found in Appendix E.

1. Wednesday 6 June 1962
2. Monday 22 October 1962

The next meeting was held on Monday 22 April 1963, being the first meeting after the merger of IRE and AIEE to IEEE, and the renaming of IRE Region 9 to IEEE Region 8; during this meeting, Norway was welcomed as a new Section (established 28 March 1963). The second meeting of Region 8, with the Federal Republic of Germany as a new Section (established 12 July 1963), was held on Monday 4 November 1963. The third meeting took place on Monday 27 April 1964, during which Jean D. Lebel was nominated as the next Region 8 Director (and as such elected later in 1964). The fourth meeting was held on Monday 26 October 1964. The fifth meeting took place on Monday 26 April 1965, with Sweden as a new Section (established 29 March 1965). The sixth meeting was held on Tuesday 7 September 1965. Note that all these meetings took place at the ITU (International Telecommunication Union) Building, Place des Nations, Geneva, Switzerland.

Transcripts of the invitations/agendas of the first six IEEE Region 8 Committee meetings are available in Appendix F; the transcripts of the minutes can be found in Appendix G.

1. Monday 22 April 1963
2. Monday 4 November 1963
3. Monday 27 April 1964
4. Monday 26 October 1964
5. Monday 26 April 1965
6. Tuesday 7 September 1965 (agenda only)

1.2 IRE Region in Europe – Bruce B. Barrow

The transcript below is taken from the article “The Benelux Section and Early IRE/IEEE Activity in Europe” by Jan Biemond and Bruce B. Barrow, presented at the 2009 IEEE Conference on the History of Technical Societies, Philadelphia, PA, 5–7 August 2009. The article is available in IEEEXplore at <http://dx.doi.org/10.1109/HTS.2009.5337847>.

In 1960 the Executive Committee of the Benelux Section had already begun to consider the idea of asking the IRE to establish a formal “region” in Europe. The regional structure would give the European Sections an opportunity to interact with each other and, more importantly, would permit the members in the region to elect a representative to the IRE Board of Directors. The idea was discussed with senior IRE officers, and on December 27, 1961, Barrow sent a letter to Dr. McFarlan, then Chairman of the IRE International Activities Committee, requesting authorization for himself to initiate exploratory contacts with other newly founded European sections and requesting authorization for Mr. Rinia to convene an inter-sectional meeting to discuss IRE activity in Europe. Such a meeting was held in Geneva on February 14, 1962, at the headquarters of the International Telecommunications Union. It was attended by representatives of the Benelux, Geneva, Italy, and France Sections, and an IRE member from Germany, where formation of a section was being considered. Following this meeting, on March 6th, the Benelux section formally petitioned the Board of Directors of the IRE “to establish a Region that will compass the territory of Greater Europe” and suggesting “that the territory of the new Region be based on the European Broadcasting Area defined in the Radio Regulations of the I.T.U. which area produced a definition of Europe that has proved

practical and that has been internationally agreed to for certain telecommunication purposes. The European Broadcasting Area includes the western part of the U.S.S.R. and the territories bordering on the Mediterranean.” On Rinia’s request, the other Sections submitted similar petitions.

On May 9 [*sic*],³ 1962 the IRE Board of Directors gave formal approval of Region 9, with boundaries closely following the recommendations of the sections. Note that inclusion of the Mediterranean area brought in the sections in Israel and Egypt. Region 9 was born, and Rinia was appointed its first Director.

It must not be assumed that the expansion of IRE activity into Europe took place without opposition. Although IRE members welcomed the new opportunities for sharing information and other professional contact, a number of the established engineering societies felt threatened. In 1948 a “Conference of Representatives from the Engineering Societies of Western Europe and the United States of America” had been held in London. This conference, which became known by the acronym EUSEC, was “of the opinion that international cooperation between professional engineers by direct contact between recognized national Societies is to be desired.” One of their explicit recommendations was, “That the formation by one Constituent Society of a branch in the territory of another is undesirable except by mutual agreement.”

The engineering societies of Germany and Denmark, as well as the IEE in the United Kingdom, all members of EUSEC, formally expressed displeasure with the expansion of IRE section activity in Europe. One of the aims of EUSEC was that “no participating Society will initiate any action within the country of another without first informing the participating Society of that country and obtaining its co-operation.”

The IRE, in all its European activities, had sincerely sought the cooperation of the local societies, but the idea that a national society could veto the formation of an IRE section was quite unacceptable, and Rinia had to engage in careful diplomacy. With the merger pending, the situation was complicated by the fact that, although the IRE was not a participant in EUSEC, the AIEE was. The Benelux Section objected strongly to bringing the merged society into EUSEC, and this matter became one of the agenda items in the merger discussions.

1.3 A Region’s ‘Birth Certificate’

The following is a transcript of a message from Emily Sirjane, IRE Office manager, to the IRE Board of Directors and Section and Subsection Officers. It is interesting to note that this ‘Birth Certificate’ of Region 9 is at the same time a ‘Birth Certificate’ of the United Kingdom Section. The second interesting point is that the IRE Office manager refers to the approval of a new Region by the IRE Executive Committee (on 24 April 1962) and not to the approval by the IRE Board of Directors (on 24 May 1962), although the memorandum itself was dated after the Board has reached its decision. This might lead to the conclusion that IRE considered 24 April 1962 as the date at which the new Region was formed. A scanned copy of the original document is available in Appendix B.

THE INSTITUTE OF RADIO ENGINEERS

INCORPORATED

August 7, 1962

To: Board of Directors
Section and Subsection Officers

From: Emily Sirjane, Office Manager

Subject: IRE Section Manual Revisions

The following actions were taken by the IRE Executive Committee under dates of April 24 and July 10, 1962:

1. Approval of the formation of a new Region, Region 9.

³This is apparently an error and should read May 24.

2. Approval of the establishment of a new Section, the United Kingdom Section.

The necessary corrections have been made to the IRE Section Manual, and you are requested to substitute the enclosed sheet for that page which immediately follows the territorial assignment of Region 8 in Section 20 of your copy of this Manual.

Enclosure (1)

1.4 The start of Region 8 and its Sections – Robert C. Winton

After the merger of the IRE and the AIEE to IEEE on 1 January 1963, the IEEE Board of Directors renamed the former IRE Region 9 into the new IEEE Region 8 on 8 January 1963. A partial transcript of “The Start of Region 8 and its Sections” as it appeared in the “Region 8 Centennial Review” reads as follows:

Region 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 U.S.A., Canada was Region 8, and there were no Regions in other countries, although Sections existed. However, on 12 May 1962,⁴ shortly before the merger, the IRE created Region 9 consisting of twelve Sections in other countries, seven of these Sections being in Europe.⁵

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;⁶ 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.

1.5 IRE/AIEE Merger – Bruce B. Barrow

The transcript below is taken from the article “The Benelux Section and Early IRE/IEEE Activity in Europe” by Jan Biemond and Bruce B. Barrow, presented at the 2009 IEEE Conference on the History of Technical Societies, Philadelphia, PA, 5–7 August 2009. The article is available in IEEEXplore at <http://dx.doi.org/10.1109/HTS.2009.5337847>.

The Institute of Electrical and Electronics Engineers (IEEE) was formed on January 1, 1963, by the merger of the Institute of Radio Engineers (IRE, founded 1912) and the American Institute of Electrical Engineers (AIEE, founded 1884).

Notable Presidents of IEEE and its founding organizations include Elihu Thomson (AIEE, 1889-1890), Alexander Graham Bell (AIEE, 1891-1892), Charles Proteus Steinmetz (AIEE, 1901-1902), Lee De Forest (IRE, 1930), Frederick E. Terman (IRE, 1941), William R. Hewlett (IRE, 1954), and Ernst Weber (IRE, 1959; IEEE, 1963).

Fundamental characteristics of the merged society were taken from the IRE, which, unlike the AIEE, was a transnational society with sections outside the USA. 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

⁴This is an error; the date should read 24 May 1962.

⁵This is an error; Region 9 was restricted to Greater Europe with six IRE Sections: Benelux, Egypt, France, Geneva, Italy, Israel. The IRE Sections Buenos Aires, Chile, Colombia, India, Rio de Janeiro and Tokyo were located in the ‘Rest of the World,’ i.e., outside Regions 1 through 9. The United Kingdom Sections was not founded yet.

⁶This is questionable; it neglects the fact that our Region started as an IRE Region.

number of Regions in the USA was reduced to six; Canada became Region 7; Europe, the Middle East, and North Africa became Region 8. On January 8, 1963, at the first IEEE Board meeting in New York, Rinia was appointed first Director of IEEE Region 8 (formerly IRE Region 9). Since no AIEE sections had existed in Europe, the section structure of IRE Region 9 was adopted for IEEE Region 8, and the AIEE members were automatically included in the IEEE Sections. What follows is a short reflection on the merger, the international policy of the IEEE and the concerns raised by European Societies about the organization of IEEE Sections in European countries.

A. Reflection on the merger

The major interests of the AIEE were wire communications (telegraph and telephony), machinery, and light and power systems. The IRE concerned mostly radio engineering, and was formed from two smaller organizations, the Society of Wireless and Telegraph Engineers and the Wireless Institute. With the rise of electronics in the 1930s, electronics engineers usually became members of the IRE, but the applications of electron tube technology became so extensive that the technical boundaries differentiating the IRE and the AIEE became blurred. After World War II the two organizations became increasingly competitive. In 1957 the IRE, with 55,500 members, was the larger organization, and it had more appeal to students and young electrical engineers. Negotiations about a merger started that year, and in 1961 the leadership of both the IRE and the AIEE resolved to consolidate the two organizations. In 1962 the IRE had 96,500 members, and the AIEE 57,000.

In the summer of 1962, having successfully defended his dissertation, Barrow returned to the U.S., where he had a small part in the discussions that were taking place as details of the merger were worked out. The President of the AIEE at that time was Dr. B. Richard Teare, Dean of the College of Engineering and Science at Carnegie Institute of Technology (now Carnegie Mellon University). Teare had been Barrow's professor when Barrow was an undergraduate, and the two felt warm mutual respect.

B. Some diplomacy

Late in September, Barrow traveled to Pittsburgh and had an opportunity to talk at length with Dr. Teare. Following are quotes from the letter-report that Barrow sent to Rinia. "The central topic of our conversation, which lasted some five hours, was international policy of the IEEE, and we concentrated specifically on the attitudes that would be brought into the IEEE from the AIEE. Dr. Teare emphasized that he could not speak for the AIEE Board, nor for the 14-man committee that is now implementing the merger. . . . He pointed out that the non-national character of IEEE is specified in the new constitution, and he defined 'non-national' as meaning that the activities of the new society would be carried out throughout the world, wherever IEEE members wanted such activities, and without regard to national boundaries."

"Dr. Teare himself has thought a good deal about questions of international policy, partly because several of the secretaries of EUSEC societies have brought such questions to his attention. . . . Because of these contacts with the European societies he was very interested to hear something of our views."

"I talked at great length (as usual), and emphasized that IRE relations with European societies are in general rather good. I also pointed out that each country, and each society, had to be considered individually, and I then said what I could about each individual problem. I pointed out the specific accord that had been reached with the SFER in France, and the proposals that had been discussed with . . . the VDE in Germany. I also told him what I knew of our difficulties and inhospitable reception in Denmark, and of the obstacles that certain of the EUSEC societies placed in the way of IRE Region 9. I emphasized that EUSEC societies were not the ones that represented the electronics profession in a number of countries, such as Belgium and France. . . ."

"The second point – the real point of contention – concerns the organization of IEEE sections in European countries. . . . I emphasized that the EUSEC societies interpreted [the EUSEC Memorandum of

Organization] to mean that they had a right to veto activity by another society in their territory. . . . Dr. Teare agreed with me . . . that the IEEE must retain the right to organize sections anywhere in the world, and that IEEE members who petition in a responsible manner to form such sections must be able to expect an affirmative response from the IEEE Board. The IEEE has announced its intention of operating in the entire world, and it must be willing to support its members, wherever they live. On this all-important and fundamental principle, Dr. Teare agrees with us completely. He is, however, very concerned that every effort be made to conciliate the various national societies, and he very much wishes to move carefully enough, and tactfully enough, to avoid open ruptures with the European societies.”

Rinia and other IEEE leaders did indeed move carefully and tactfully, and relationships with the European societies have been conciliatory. But the IEEE did not affiliate with EUSEC.

2 The later history of IEEE Region 8

2.1 The creation of IEEE Region 10 and the extension of Region 8

IEEE Region 8 was formed (as an IEEE Region after the IRE/AIEE merger) on 8th January 1963. At that time it comprised Europe, the Middle East and North Africa. The ‘rest of the world’ was all Region 9 at that time, until on 1 January 1967, Region 9 was limited to South America and the ‘rest of the world’ became Region 10, with Shigeo Shima as its first Director (1967–68). During its meeting on 13–14 November 1969, the Board of Directors agreed to change Bylaw 401.1 such that ‘Region 8 shall consist of Greenland, Europe, U.S.S.R. and the following countries in North Africa and the Near East: Aden Protectorate, Algeria, Bahrain, Chad, Egypt, Eritrea, Ethiopia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Mali, Mauritania, Morocco, Muscat, Oman, Niger, Qatar, Saudi Arabia, Somalia, Spanish Sahara, Sudan, Syria, Trucial Coast, Tunisia, Turkiye, the United Arab Republic, and Yemen.’ Note that ‘United Arab Republic’ was at that time and until 1971 the official name for Egypt; between 1958 and 1961, it was the name of a union between Egypt and Syria.

South Africa Section (established 5 August 1977) and the Nigeria Section (established 12 January 1978) were part of IEEE Region 10 till 1981. At the 14 December 1979 meeting of the Regional Activities Board, Region 8 Director Dick C.J. Poortvliet and Region 10 Director S.Y. King announced that Region 8 will add the Continent of Africa to its territory in 1981 and that a proposal for revisions in the Bylaws would be presented at the February meeting. Said proposal was accepted unanimously at the 15 February 1980 RAB meeting, pending acceptance of the concerned sections (South Africa and Nigeria). In the 22 August 1980 RAB meeting, the motion to recommend to the Board of Directors adoption of the revision of Bylaw 401.2 passed. In its subsequent meeting of 24–25 August 1980, Vice President Larry K. Wilson (Regional Activities) moved for (1) adoption of revised Bylaw 401.2 which would assign the continent of Africa to Region 8, as recommended by the Region 8 and 10 Committee and RAB, this boundary change to become effective January 1, 1981, (2) approval to waive the 1981 Region 8 assessment for those members involved in the transfer from Region 10 to Region 8, and (3) approval to include in the 1981 RAB Budget the funding of travel expenses of the Nigeria and South Africa Section Chairmen to attend 1981 Region 8 Committee meetings. The motion passed, after which Bylaw 401.2 reads: ... Region 8 shall consist of Africa, Europe, Greenland, Iceland, the Union of Soviet Socialist Republics, and the Near and Middle East countries located west of Afghanistan and Pakistan. ...

2.2 The Eastward spread of Sections in Region 8 – Tony Davies

The transcript below is taken from the article “Some recollections of the Eastward spread of IEEE Sections in Region 8” by Tony Davies as it appears on the IEEE Region 8 web site.

In the days before the end of the Berlin Wall, and the associated political changes in Eastern and Central Europe, IEEE activity in the countries east of the ‘Iron Curtain’ was limited. There was a Poland Section in Region 8, formed in 1972, and occasional IEEE related conferences had taken place there. Other International Organisations such as IFAC and IFIP were rather more successful in organising conferences in this part of the world, because of the way that they had ‘representatives’ of each country in their management bodies.

The Hungary Section was formed in 1987, and the Region 8 Committee held a meeting in Budapest in April 1989.

After the changes, there was a rapid development of IEEE activity and formation of new Sections. A Region 8 Committee meeting was held in Warsaw, Poland, in Spring 1991 during what were still difficult economic times for Poland.

However, growth in membership numbers was (and still is) slow. The economic changes meant that IEEE membership was unaffordable for many professional engineers and academics. Senior members of national research institutes were often able to join using other than personal funds, but in a few cases, they regarded IEEE membership as something of a privilege which they were reluctant to share with junior colleagues.

Somewhat later, the R8 Committee held several more of its meetings in the Central and Eastern European areas: Prague, Czech Republic, in 1994, Berlin, Germany in 1999, in what had been East Berlin (part of the former GDR), then at Budapest, Hungary in 2002 and at Kraków, Poland in 2004. The Czechoslovakia Section was formed in 1992 and despite the split of Czechoslovakia into the Czech and Slovakian Republics, a single Section for both has been retained, although that may not be sustainable in the long term.

Russia was something of a special case – a huge country with many locations which have extensive Scientific and Engineering activity at a high level – where one might expect, in the long term, to see many IEEE activities develop. However after the IEEE Russia Section was formed in 1990, membership growth was very slow, mainly for economic reasons, although many Chapters were formed, partly with the aid of a financial support initiative from some IEEE Societies, especially from Electron Devices, and who paid for initial memberships so that Chapter formation petitions could be created, and there were a number of IEEE conferences held. Chapter Chairs meetings were held in various places in Region 8 with financial support from Societies in Division I and IV and from Region 8, generally alongside the major conferences of one of the Societies, and the support was enough to pay for the attendance of Chapter Chairs from many of the Central and Eastern European locations. The Microwave Theory and Techniques Society was also very active in this initiative and still is. This led to several similar Chapter Chairs meetings for other Societies being initiated by the Region 8 Committee (for example, one for Signal Processing Chapter Chairs alongside the ICASSP in Istanbul, Turkiye in June 2000).

However, Chapters in parts of Russia remote from Moscow sometimes complained of lack of support from their Section, and after a while moves to provide some independence for activities in St. Petersburg and Siberia arose. After some suggestions to form a Russia Council were abandoned, there was finally agreement to form three Russia Sections, one to be called ‘North West’ and one ‘Siberia’ – while the original Russia Section retained responsibility for all other parts of the country. Existing Chapters were transferred to the newly formed Sections where the location of their principal activities justified it.

Another “problem” with some of the new Chapters was an unwillingness of the initial Chapter Chairs to hold elections and be replaced by other volunteers, resulting in some very long-serving Chairs. This also happened with a few of the new Sections. In the Ukraine Section, there were strong ‘differences of opinion’ between a Chapter in the East part and another in the West part!

When the three Baltic Republics (Estonia, Lithuania and Latvia) gained their independence from Russia, there was a suggestion from the Region 8 Committee management to try to form a single ‘Baltic’ IEEE Section, combining the three countries. There was a mistaken belief that they were all rather similar, with languages incorrectly assumed to be Slavic! It took some persuasion to convince some senior R8 IEEE volunteers that this was not the case, and that each had a very different language and culture.

An early step was the formation of a Chapter in Estonia, which was affiliated with Finland since there was no Estonia Section. I had the pleasure of announcing the formation of this Chapter to the Region 8 Committee when they met in Piscataway in Spring 1998. To the puzzlement of all except the IEEE Finland Chair, I preceded my announcement by asking the Committee to listen to some music played over the audio system – this was a recording of the Estonian National Anthem, to celebrate the formation of the first IEEE unit in Estonia. It was immediately recognised by the Finland Section Chair because both countries share the same tune for their National Anthems, even though the words are quite different. During the time of the Soviet Union, playing the Estonian National Anthem or showing the Estonian flag were serious offences. Some time passed before the three Baltic countries had their own Sections, with the Latvia Section having only recently been established (in 2008).

As mentioned in the September 1995 interview by Bob Winton (archived at the IEEE History Center at Rutgers University, with a link from the Region 8 website), initial attempts to form a Lithuania Section involved Prof. Raimundas Jasinevicius, from Kaunas University of Technology, who had established links with Universities in London, England many years before, for the exchange of junior academics, etc. Progress with Section formation was very slow and made slower by his absence in Denmark for six years as

Lithuanian Ambassador. However, the Section was finally established in 2005, based mainly in Vilnius. This was followed by the Estonia Section formation in 2006 and the Latvia Section formation in 2008.

IEEE activities in the former Yugoslavia were another special case.⁷ The Yugoslavia Section was formed in 1971 in Ljubljana, Slovenia, and became moderately active in holding conferences and in providing IEEE volunteers. Because of a 'blocked currency' situation, an arrangement was made to keep the funds in a Bank in Ljubljana where they could be utilized for organization of local IEEE conferences and also to pay the local costs of conference attendance there by visitors from Western countries, who could then reimburse IEEE in USA. Following the wars in Yugoslavia, in 1992 the Region 8 Director Kurt Richter organized a meeting with three members of the Yugoslavia Section Executive Committee in Graz, Austria. It was decided to form by petitions three new Sections, as three equal successors of the previous Yugoslavia Section: the Slovenia Section, the Croatia Section, and the Yugoslavia Section. It was a friendly splitting into three new Sections and in 1996 all three Sections celebrated their 25th anniversary. In 1997 the Republic of Macedonia Section was formed. The name Yugoslavia became an increasing anomaly, and in 2005 it was renamed the Serbia and Montenegro Section; the Bosnia and Herzegovina Section was formed later that year.

Because of a number of rather new Sections wanting to host the R8 Committee, and because the R8 Committee management was glad of the opportunities to welcome these new Sections by meeting on their territory, the Committee meetings were held in Vilnius, Lithuania, in 2006 and in Sofia, Bulgaria and Bucharest, Romania, in 2007, and later in Riga, Latvia.

The next few meetings of the R8 Committee are likely to be in Western Europe (for example, Paris, Berlin), and so the long term average is more balanced.

Prof. Tony Davies, 8 June 2008 (minor updating April 2012)
with one paragraph slightly adapted and extended by Aleksandar Szabo.

2.3 Yugoslavia Section from 1971 to 1992 – Baldomir Zajc

In 1970 and even before there were some IEEE members living in Yugoslavia, using benefits of such membership for their professional activity. At that time we noted some contacts between members in Yugoslavia and in other countries, experienced with the significance and benefits of IEEE Sections there. So information was collected. Then contacts between C. Reginald Russell, Assistant Secretary of IEEE Region 8 and Dr. Jože Furlan, Professor at the Faculty of EE, University of Ljubljana in November 1970 resulted in IEEE Membership Services mailing in December 1970 the information on requirements to establish an IEEE Section, and providing also the IEEE Constitution, Bylaws and Section Manual by the request of Mr. Russell.

Section Formation Petitions normally require the signatures of at least 50 members. However, the signed petition with far less signatures was sent on 10th May, 1971, at the suggestion of Region 8 Director P. Jespers, who proposed that less than 50 members were sufficient (only 15 members were available at different locations in Yugoslavia at that time). At the beginning Dr. Furlan explained the difficulties with payment the dues in foreign currency. It was decided that the future payments could be in local currency using a blocked custody account established in a Yugoslavian bank, but that the Section should be set up first. Of course there was also a high interest in IEEE to start activities in Eastern Europe. Director Jespers also visited Yugoslavia in the summer.

The newly formed and developing Section promised to new members the possibility of membership dues payment in dinars and giving all IEEE benefits and services, including magazines, conference participation and also with strong student activity support available. This was throughout the next 20 years a real salvation for the entire international literature of engineering in the country, because of the permanent scarcity of foreign currency which meant that books and magazines could not be imported.

⁷This paragraph is slightly adapted and extended by Aleksandar Szabo.

The formal date of the RAB approval of the establishment of the Yugoslavia Section was 21st June, 1971.

On **13th October, 1971** at the Faculty of EE, University of Ljubljana, the Founding Assembly for an official formation of Yugoslavia Section took place, at which officers were elected for the first Yugoslavia Section Executive Committee and the first Yugoslavia Section Chairman **Mirjam Gruden**. Later elected Chairmen were, in February 1981 **Jože Furlan**, then **Mirko Vehovec** in June 1985 and **Baldomir Zajc** in January 1988. Through the years participants in Executive Committees included the following volunteers: Vinko Albert, Stanoje Bingulac, Andrej Dobnikar, Jože Mlakar, Albin Wedam, Drago Hercog, Franc Bratkovič, Aleksandar Szabo, Dušan Drajić, Ferdinand Gubina, Rudi Zorko, Bogomir Horvat, France Kranjc, Dejan Lazić, Andrej Levstek, Hrvoje Babić, Branka Jokanović and Marko Jagodič.

On 12th June, 1971 a Petition was also signed for the establishment of a Student Branch at the University of Ljubljana.

On July 1972 an IEEE Custody Bank Account in Yugoslavia was agreed by the IEEE Executive Committee, and as a result the payments of membership dues were possible after 1st February, 1973 when the National Bank approved the bank account at Ljubljanska Banka where four persons from USA were authorized to sign withdrawals. So the membership development was enabled and encouraged. This was the beginning of a 20 year long period when the Section Secretary was acting as a benevolent book-keeper over IEEE membership dues payments in the Yugoslavia Section. It was quite an office!

According to the Petition for the State registration of the Yugoslavia Section from 9th November, 1971 the Statement of the official State **registration of Yugoslavia Section in Yugoslavia** was issued on 18th October, 1972.

Later in 1976 according a new “Yugoslav Law for Societies’ registration” a direct registration of the Yugoslavia Section was no longer possible and the Yugoslavia Section joined under the umbrella of the Electrotechnical Association of Slovenia – EZS, in order to be officially allowed.

On 10–13th June, 1984 the President of IEEE, Richard J. Gowen and Executive Director Eric Herz visited Ljubljana and on 12th June at the University of Ljubljana granted three IEEE Centennial Medals to Rajko Tomović, Hrvoje Požar and Lojze Vodovnik.

The RAB Section Membership Growth Award was granted to the Yugoslavia Section for outstanding leadership and results in IEEE membership development activities for Region 8 in 1985.

About 300 members (including 40 Student members) were reported at the middle of the eighties.

An IEEE Region 8 Committee meeting was organized by the Yugoslavia Section at Brdo, Slovenia on 19–20th September, 1987. This was the 3rd such meeting, after those in Dubrovnik on 25–26th October, 1974 and Split on 11–12th November, 1978.

In 1988–1989 the following chapters were established:

- Chapter on SP/CAS (001/041), Chair Hrvoje Babić, Elektrotehnički fakultet, Zagreb
- Chapter on MTT (017), Chair Branka Jokanović, Institut za primenjenu fiziku, Novi Beograd
- Chapter on Com (019), Chair Marko Jagodič, Iskra, Kranj

In 1998 Region 8 Committee accepted the candidacy of the Yugoslavia Section for organization of MELECON 91 on 22–24nd May, 1991 in Ljubljana. The Conference was held and was very successful, although the political situation in Yugoslavia at that time prevented a high attendance of participants.

The Yugoslavia Section cooperated with National Societies ETAN, JUGEL, JUREMA, EZS and with all Yugoslav Universities in the organization of several conferences during those years.

After nearly 20 years of its existence the Yugoslavia Section reported a membership of about 700.

Already during the Annual Assembly in January 1990 there were visible different political attitudes of the Yugoslav Republics and their disagreement was apparent. In 1991 even the currencies used became different and therefore on 9th December, 1991 the Yugoslavia Section Chairman Baldomir Zajc proposed to form three IEEE Sections, in Ljubljana, Zagreb and Belgrade and to split the custody account at the bank into 3 parts because the contacts between the Republics no longer existed.

On 30th April, 1992 Region 8 Director Kurt Richter at the proposal of Baldomir Zajc invited Aleksandar Szabo from Zagreb, Đorđe Paunović from Belgrade and Baldomir Zajc from Ljubljana to form new Sections. All agreed to the proposal for three Sections: Slovenia, Croatia and for the remainder, a new Yugoslavia Section instead of the 20 years old Yugoslavia Section. **1st August, 1992 is the date of the formations of these 3 Sections.** In Macedonia and Bosnia and Herzegovina there was scarcity of members at that time. The Republic of Macedonia Section was established after the first visit of IEEE President Wally Read to Bulgaria (where a delegation from Macedonia was present) and to Slovenia in 1996. In 1997 Wally Read visited this already established Republic of Macedonia Section. In Bosnia and Herzegovina an IEEE Section was established at the end of 2005 in the time of Region 8 Director Baldomir Zajc's term of office, 2005–06.

This description covers the 20 fruitful years of IEEE activity in the area, and after that five Sections were developed in this territory and now, everywhere the IEEE activity is going on successfully with new challenges and new volunteers.

2.4 The present IEEE Region 8 Sections

The following list of Sections, chronologically sorted by their foundation date, is taken from the Region 8 web site.

| | | | |
|-------------|--------------------------------------|-------------|---------------------------------------|
| 5-Oct-1954 | Israel | 15-Aug-1990 | Romania |
| 8-Sep-1955 | Egypt ^(l) | 15-Aug-1990 | Russia ⁽ⁱ⁾ |
| 13-May-1959 | Benelux | 21-Nov-1991 | Ukraine |
| 13-May-1959 | Italy ^(a) | 1-Aug-1992 | Czechoslovakia |
| 13-Dec-1960 | Switzerland ^(b) | 30-Jun-1993 | Cyprus ^(j) |
| 17-Oct-1961 | France | 24-Jun-1995 | Bulgaria |
| 10-Jul-1962 | UK and Ireland ^(c) | 14-Feb-1997 | North Macedonia ^(e) |
| 28-Mar-1963 | Norway | 12-Nov-1999 | Jordan |
| 12-Jul-1963 | Germany ^(d) | 23-Jun-2000 | Iceland |
| 20-Mar-1965 | Sweden | 22-Jun-2001 | Bahrain |
| 16-Apr-1968 | Spain | 15-Feb-2002 | Belarus |
| 18-Aug-1968 | Denmark | 13-Feb-2003 | Russia (Northwest) ⁽ⁱ⁾ |
| 12-Feb-1970 | Iran | 13-Feb-2003 | Russia (Siberia) ⁽ⁱ⁾ |
| 17-Mar-1970 | Greece | 18-Nov-2004 | Lebanon |
| 21-Jun-1971 | Croatia ^(e) | 18-Nov-2004 | Morocco ^(l) |
| 21-Jun-1971 | Serbia and Montenegro ^(e) | 18-Nov-2004 | Qatar |
| 21-Jun-1971 | Slovenia ^(e) | 18-Jun-2005 | Lithuania |
| 1-Dec-1972 | Poland | 12-Nov-2005 | Bosnia and Herzegovina ^(e) |
| 12-Jun-1973 | Finland | 18-Feb-2006 | Oman |
| 5-Aug-1977 | South Africa ^{(f)(l)} | 23-Jun-2006 | Estonia |
| 12-Jan-1978 | Nigeria ^{(f)(l)} | 18-Nov-2006 | Malta |
| 21-Dec-1979 | Austria | 16-Feb-2008 | Latvia |
| 5-Jun-1981 | Saudi Arabia | 21-Jun-2008 | Iraq |
| 4-Dec-1981 | Portugal | 21-Jun-2008 | Tunisia ^(l) |
| 19-Nov-1982 | Kenya ^{(g)(l)} | 5-Sep-2008 | Ghana ^(l) |
| 20-Jun-1987 | United Arab Emirates | 15-Nov-2008 | Zambia ^(l) |
| 21-Aug-1987 | Hungary | 21-Nov-2015 | Algeria ^{(k)(l)} |
| 18-Nov-1988 | Western Saudi Arabia ^(h) | 17-Nov-2018 | Uganda ^{(m)(l)} |
| 18-Aug-1989 | Turkiye | 22-Jun-2019 | Mauritius ^{(l)(n)} |
| 20-Feb-1990 | Kuwait | | |

- (a). The Italy Section was split into two Sections, Italy (North) and Italy (Central & South) on 23 May 1966; until 1988, Italy (Central & South) was called Italy (Middle & South). The two Sections were merged again in November 2005.
- (b). The Switzerland Section was called Geneva Section until 20 September 1967.
- (c). The UK and Ireland Section was called the UK & Eire Section until 1 November 1966 and the UK & Rep of Ireland Section from 1 November 1966 until 21 June 2014.
- (d). The Germany Section was called the West Germany Section until 20 September 1967 and the Germany (West) Section from 20 September 1967 until 17 June 1991.
- (e). The Yugoslavia Section was established on 21 June 1971. Following the wars in Yugoslavia, in 1992 the Region 8 Director Kurt Richter organized a meeting with three members of the Yugoslavia Section Executive Committee in Graz, Austria. It was decided to form by petitions three new Sections, as three equal successors of the previous Yugoslavia Section: the Slovenia Section, the Croatia Section, and the Yugoslavia Section, all established on 1 August 1992. It was a friendly splitting into three new Sections and in 1996 all three Sections celebrated their 25th anniversary. In 1997 the Republic of Macedonia Section was formed, and on 27 June 2020, its name was changed into North Macedonia Section. The name Yugoslavia became an increasing anomaly, and in 2005 it was

renamed the Serbia and Montenegro Section; the Bosnia and Herzegovina Section was formed later that year. See also Section 2.2.

- (f). The South Africa and Nigeria Section were initially Sections of Region 10. They were assigned to Region 8 on 1 January 1981, when all of Africa was shifted from Region 10 to Region 8.
- (g). The Kenya Section has been called the East Africa Section for a couple of years, and was renamed Kenya Section again in August 1990.
- (h). The Western Saudi Arabia Section started as the Jeddah Subsection of the Saudi Arabia Section; formation date 16 February 1987. Until 15 August 1990 it was called the Jeddah Section.
- (i). After the Russia Section (initially: Moscow Section, until 28 February 1993) was formed in 1990, membership growth was very slow, mainly for economic reasons, although many Chapters were formed, partly with the aid of a financial support initiative from some IEEE Societies, especially from Electron Devices, and who paid for initial memberships so that Chapter formation petitions could be created, and there were a number of IEEE conferences held. However, Chapters in parts of Russia remote from Moscow sometimes complained of lack of support from their Section, and after a while moves to provide some independence for activities in St. Petersburg and Siberia arose. After some suggestions to form a Russia Council were abandoned, there was finally agreement in 1993 to form three Russia Sections, one to be called ‘Northwest’ and one ‘Siberia’ – while the original Russia Section retained responsibility for all other parts of the country. Existing Chapters were transferred to the newly formed Sections where the location of their principal activities justified it. See also Section 2.2.
- (j). The Cyprus Section started as a Subsection of the Greece Section; formation date 18 July 1988.
- (k). The Algeria Section started as a Subsection of the Region; formation date 19 November 2011.
- (l). The IEEE Africa Council – initially consisting of the Algeria, Ghana, Kenya, Morocco, Nigeria, South Africa, Tunisia and Zambia Sections – was formed on 24 June 2018. The Mauritius and Uganda Sections and the Botswana, Burkina Faso, and Sudan Subsections joined on 22 June 2019. The Liberia Subsection joined on 23 November 2019. The Egypt Section joined on 25 June 2022. The Libya Subsection joined on 19 November 2022. The Council consists currently of 16 geographic units: 11 Sections and 5 Subsections.
- (m). The Uganda Section started as a Subsection of the Region; formation date 21 November 2015.
- (n). The Mauritius Section started as a Subsection of the Region; formation date 25 June 2011.

Following is a list of *past* (9) and *present* (13) Subsections.

| | | | |
|-------------|--------------|------------------------------------|--|
| 10-Jul-1983 | Saudi Arabia | <i>Jubail Subsection</i> | dissolved 21-Nov-2015 |
| 16-Feb-1987 | Saudi Arabia | <i>Jeddah Subsection</i> | transformed into a Section 18-Nov-1988 |
| 18-Jul-1988 | Greece | <i>Cyprus Subsection</i> | transformed into a Section 30-Jun-1993 |
| 18-Jul-1988 | Saudi Arabia | <i>Riyadh Subsection</i> | dissolved 13-Feb-2016 |
| 5-May-1990 | Norway | <i>Bergen Subsection</i> | dissolved 15-Feb-2002 |
| 4-Dec-1992 | Egypt | Alexandria Subsection | |
| 23-Jun-2006 | Region 8 | Tanzania Subsection | |
| 15-Nov-2008 | Region 8 | Botswana Subsection ^(l) | |
| 20-Nov-2010 | Tunisia | <i>Sfax Subsection</i> | dissolved 21-Nov-2015 |
| 25-Jun-2011 | Region 8 | <i>Mauritius Subsection</i> | transformed into a Section 22-Jun-2019 |
| 25-Jun-2011 | Region 8 | Sudan Subsection ^(l) | |
| 19-Nov-2011 | Region 8 | <i>Algeria Subsection</i> | transformed into a Section 21-Nov-2015 |
| 1-Jan-2012 | Region 8 | Palestine Subsection | |

2.4 The present IEEE Region 8 Sections

| | | | |
|-------------|------------------|--|--|
| 21-Nov-2015 | Region 8 | <i>Uganda Subsection</i> | transformed into a Section 17-Nov-2018 |
| 24-Jun-2017 | Region 8 | Kazakhstan Subsection | |
| 23-Jun-2018 | Russia (Siberia) | Russia Far Eastern Subsection | |
| 17-Nov-2018 | Region 8 | Burkina Faso Subsection ^(l) | |
| 17-Nov-2018 | Region 8 | Yemen Subsection | |
| 22-Jun-2019 | Region 8 | Liberia Subsection ^(l) | |
| 26-Jun-2021 | Region 8 | Libya Subsection ^(l) | |
| 25-Jun-2022 | Region 8 | Ethiopia Subsection | |
| 17-Jun-2023 | Nigeria | Nigeria Southeast Subsection | |

2.5 Geographic Unit statistics at year end

| Year | Sections | Subsect. | Chapters | Aff. Groups | Stud. Branches | SB Chap. | SB Aff. Groups |
|------|----------|----------|----------|-------------|----------------|----------|----------------|
| 1962 | 7 | . | . | . | 1 | . | . |
| 1963 | 9 | . | . | . | 2 | . | . |
| 1964 | 9 | . | . | . | 3 | . | . |
| 1965 | 10 | . | . | . | 4 | . | . |
| 1966 | †11 | . | 1 | . | 5 | . | . |
| 1967 | 11 | . | 2 | . | 7 | . | . |
| 1968 | 13 | . | 2 | . | 12 | . | . |
| 1969 | 13 | . | 3 | . | 18 | . | . |
| 1970 | 15 | . | 3 | . | 24 | . | . |
| 1971 | 16 | . | 3 | . | 29 | . | . |
| 1972 | 17 | . | 5 | . | 31 | . | . |
| 1973 | 18 | . | 5 | . | 31 | . | . |
| 1974 | 18 | . | 5 | . | 36 | . | . |
| 1975 | 18 | . | 5 | . | 31 | . | . |
| 1976 | 18 | . | 6 | . | 31 | . | . |
| 1977 | 18 | . | 7 | . | 33 | . | . |
| 1978 | 18 | . | 8 | . | 33 | . | . |
| 1979 | 19 | . | 9 | . | 33 | . | . |
| 1980 | 19 | . | 11 | . | 38 | . | . |
| 1981 | 23 | . | 13 | . | 41 | . | . |
| 1982 | 24 | . | 16 | . | 41 | . | . |
| 1983 | 24 | 1 | 21 | . | 42 | 2 | . |
| 1984 | 24 | 1 | 27 | . | 42 | 2 | . |
| 1985 | 24 | 1 | 29 | . | 43 | 2 | . |
| 1986 | 24 | 1 | 34 | . | 44 | 2 | . |
| 1987 | 26 | 2 | 36 | . | 44 | 4 | . |
| 1988 | 27 | 3 | 42 | . | 46 | 4 | . |
| 1989 | 28 | 3 | 50 | . | 54 | 4 | . |
| 1990 | 31 | 4 | 66 | . | 60 | 4 | . |
| 1991 | 32 | 4 | 77 | . | 63 | 4 | . |
| 1992 | 35 | 5 | 93 | . | 70 | 2 | . |
| 1993 | 36 | 4 | 103 | . | 74 | 3 | . |
| 1994 | 36 | 4 | 125 | . | 80 | 4 | . |
| 1995 | 37 | 4 | 151 | . | 84 | 4 | . |
| 1996 | 37 | 4 | 178 | . | 91 | 4 | . |
| 1997 | 38 | 4 | 209 | . | 100 | 5 | . |
| 1998 | 38 | 4 | 235 | . | 117 | 5 | . |
| 1999 | 39 | 4 | 260 | 2 | 132 | 13 | . |
| 2000 | 40 | 4 | 278 | 6 | 152 | 14 | . |
| 2001 | 41 | 4 | 299 | 8 | 133 | 22 | . |
| 2002 | 42 | 3 | 312 | 9 | 177 | 29 | . |
| 2003 | 44 | 3 | 353 | 13 | 196 | 32 | 4 |
| 2004 | 47 | 3 | 367 | 14 | 213 | 36 | 11 |
| 2005 | ‡48 | 3 | 398 | 28 | 236 | 36 | 16 |
| 2006 | 51 | 4 | 422 | 32 | 257 | 36 | 16 |

† Italy Section was split into two Sections: Italy (North) and Italy (Central & South) in 1966.

‡ Italy (North) and Italy (Central & South) were merged into one Italy Section in 2005.

2.5 Geographic Unit statistics at year end

| Year | Sections | Subsect. | Chapters | Aff. Groups | Stud. Branches | SB Chap. | SB Aff. Groups |
|------|----------|----------|----------|-------------|----------------|----------|----------------|
| 2007 | 51 | 4 | 446 | 36 | 273 | 41 | 33 |
| 2008 | 56 | 5 | 449 | 43 | 290 | 42 | 33 |
| 2009 | 56 | 5 | 484 | 45 | 316 | 49 | 40 |
| 2010 | 56 | 6 | 495 | 57 | 345 | 69 | 40 |
| 2011 | 56 | 9 | 524 | 63 | 377 | 83 | 49 |
| 2012 | 56 | 10 | 543 | 68 | 416 | 106 | 55 |
| 2013 | 56 | 10 | 552 | 71 | 449 | 125 | 58 |
| 2014 | 56 | 10 | 523 | 76 | 477 | 159 | 62 |
| 2015 | 57 | 8 | 554 | 79 | 510 | 188 | 74 |
| 2016 | 57 | 7 | 570 | 88 | 568 | 236 | 85 |
| 2017 | 57 | 8 | 574 | 95 | 597 | 288 | 101 |
| 2018 | 58 | 10 | 585 | 98 | 638 | 342 | 114 |
| 2019 | 59 | 10 | 604 | 106 | 663 | 389 | 126 |
| 2020 | 59 | 10 | 620 | 111 | 680 | 432 | 137 |
| 2021 | 59 | 11 | 624 | 116 | 698 | 482 | 148 |
| 2022 | 59 | 12 | 643 | 120 | 743 | 561 | 158 |

2.6 Membership statistics at year end

| Year | HonM | StudM | GradStudM | AssocM | Member | SeniorM | Fellow | Total |
|------|------|-------|-----------|--------|--------|---------|--------|-------|
| 1963 | | 449 | | 503 | 1716 | 711 | 94 | 3473 |
| 1964 | | 271 | | 509 | 1812 | 752 | 94 | 3438 |
| 1965 | | 233 | | 529 | 1915 | 736 | 100 | 3513 |
| 1966 | | 288 | | 538 | 2238 | 768 | 106 | 3938 |
| 1967 | | 447 | | 500 | 2243 | 807 | 126 | 4123 |
| 1968 | | 994 | | 520 | 2348 | 807 | 141 | 4810 |
| 1969 | | 988 | | 478 | 2602 | 851 | 146 | 5065 |
| 1970 | | 1131 | | 475 | 2903 | 884 | 158 | 5551 |
| 1971 | | 1118 | | 477 | 3248 | 904 | 173 | 5920 |
| 1972 | | 904 | | 472 | 3554 | 885 | 175 | 5990 |
| 1973 | | 1117 | | 450 | 3789 | 914 | 177 | 6447 |
| 1974 | | 1091 | | 447 | 4213 | 932 | 180 | 6863 |
| 1975 | | 1153 | | 444 | 4607 | 916 | 178 | 7298 |
| 1976 | | 1107 | | 445 | 5004 | 905 | 191 | 7652 |
| 1977 | | 1347 | | 480 | 5090 | 917 | 194 | 8028 |
| 1978 | | 1374 | | 556 | 5478 | 918 | 194 | 8520 |
| 1979 | | 1667 | | 663 | 6037 | 944 | 202 | 9513 |
| 1980 | | 1915 | | 728 | 6713 | 943 | 207 | 10506 |
| 1981 | | 2078 | | 751 | 7679 | 994 | 215 | 11717 |
| 1982 | 1 | 2173 | | 756 | 8673 | 1043 | 227 | 12873 |
| 1983 | 1 | 2264 | | 788 | 9291 | 1199 | 227 | 13770 |
| 1984 | 1 | 2422 | | 914 | 9672 | 1262 | 231 | 14502 |
| 1985 | 1 | 2339 | | 1113 | 10088 | 1287 | 240 | 15068 |
| 1986 | 1 | 2693 | | 1279 | 10771 | 1360 | 250 | 16354 |
| 1987 | 1 | 3112 | | 1281 | 11838 | 1416 | 246 | 17894 |
| 1988 | 1 | 3914 | | 1843 | 12690 | 1477 | 253 | 20178 |
| 1989 | 1 | 4404 | | 2180 | 14053 | 1494 | 276 | 22408 |
| 1990 | 1 | 4701 | | 2480 | 15424 | 1614 | 298 | 24518 |
| 1991 | 1 | 5084 | | 2418 | 16346 | 1717 | 306 | 25872 |
| 1992 | 2 | 4854 | | 2347 | 17886 | 1791 | 322 | 27202 |
| 1993 | 2 | 5142 | | 2347 | 18632 | 1824 | 346 | 28293 |
| 1994 | 3 | 5466 | | 3005 | 18865 | 1880 | 375 | 29594 |
| 1995 | 4 | 5369 | | 4233 | 20033 | 1924 | 397 | 31960 |
| 1996 | 4 | 6183 | | 5093 | 20618 | 2008 | 418 | 34324 |
| 1997 | 5 | 7304 | | 5283 | 21891 | 2092 | 441 | 37016 |
| 1998 | 5 | 8068 | | 5617 | 24000 | 2213 | 458 | 40361 |
| 1999 | 5 | 9293 | | 6886 | 25581 | 2482 | 485 | 44732 |
| 2000 | 5 | 10059 | | 7630 | 27359 | 2587 | 517 | 48157 |
| 2001 | 5 | 12152 | | 9887 | 27534 | 2686 | 544 | 52808 |
| 2002 | 5 | 11655 | | 9911 | 26581 | 2886 | 564 | 51602 |
| 2003 | 6 | 11069 | | 5818 | 29804 | 3025 | 573 | 50295 |
| 2004 | 6 | 12967 | | 4622 | 31985 | 3290 | 601 | 53471 |
| 2005 | 6 | 14895 | | 5215 | 32682 | 3513 | 642 | 56953 |
| 2006 | 7 | 16439 | | 4868 | 34969 | 3896 | 677 | 60856 |
| 2007 | 7 | 9753 | 7708 | 4894 | 37707 | 4180 | 727 | 64976 |
| 2008 | 7 | 9713 | 8651 | 4169 | 39447 | 4462 | 772 | 67221 |
| 2009 | 7 | 9539 | 10028 | 3242 | 41982 | 4743 | 830 | 70371 |

2.6 Membership statistics at year end

| Year | HonM | StudM | GradStudM | AssocM | Member | SeniorM | Fellow | Total |
|------|------|-------|-----------|--------|--------|---------|--------|-------|
| 2010 | 7 | 9826 | 11036 | 3098 | 43424 | 5036 | 870 | 73297 |
| 2011 | 7 | 10761 | 11119 | 3208 | 44841 | 5459 | 927 | 76322 |
| 2012 | 7 | 10420 | 11658 | 2546 | 46350 | 5955 | 973 | 77909 |
| 2013 | 7 | 10909 | 12036 | 2119 | 46110 | 6389 | 1027 | 78597 |
| 2014 | 7 | 10691 | 11607 | 1901 | 46219 | 6718 | 1063 | 78206 |
| 2015 | 7 | 11123 | 11512 | 1766 | 45173 | 7220 | 1082 | 77883 |
| 2016 | 9 | 11654 | 10843 | 1487 | 44136 | 7689 | 1135 | 76951 |
| 2017 | 9 | 12423 | 10350 | 1441 | 42558 | 8209 | 1178 | 76168 |
| 2018 | 10 | 12885 | 10768 | 1546 | 42356 | 8739 | 1215 | 77519 |
| 2019 | 9 | 11968 | 11103 | 1408 | 40611 | 9465 | 1250 | 75814 |
| 2020 | 10 | 10154 | 10116 | 1266 | 38077 | 9897 | 1283 | 70803 |
| 2021 | 10 | 13930 | 10702 | 1071 | 37102 | 10308 | 1328 | 74451 |
| 2022 | 10 | 17439 | 11999 | 1159 | 37960 | 10776 | 1384 | 80727 |

3 IEEE Region 8 Operating Committees and Appointed Members

3.1 Operating Committees

| | | |
|--|---|--|
| 1962–1964 | Director Vice Chair Secretary-Treasurer | Herre Rinia (Benelux) Emilio C. Gatti (1962 only?) John H. Gayer |
| 1965–1966 | Director Secretary-Treasurer Student Activities | Jean D. Lebel (France) John H. Gayer (1965) / Robert C.G. Williams (1966) Paul G.A. Jespers (1966) |
| 1967–1968 | Director Vice Chair Secretary-Treasurer Student Activities Acting SAC Chair | Robert C.G. Williams (UK and Ireland) Jean D. Lebel C. Reginald Russell Paul G.A. Jespers André Vander Vorst |
| 1969–1970 | Director Secretary-Treasurer Student Activities | Roger P. Wellinger (Switzerland) Fritz Eggimann Paul G.A. Jespers (1969) / E. Folke Bolinder (1970) |
| 1971–1972 | Director Secretary-Treasurer Student Activities | Paul G.A. Jespers (Benelux) C. Reginald Russell E. Folke Bolinder (1971) / André S. Vander Vorst (1972) |
| 1973–1974 | Director Secretary-Treasurer Student Activities | C. Reginald Russell (UK and Ireland) R.C. (Bob) Winton André S. Vander Vorst (1973) / E. Folke Bolinder (1974) |
| In 1975, the Region 8 Committee elected for the first time a Vice Chair = Immediate Past Director. | | |
| 1975–1976 | Director Vice Chair Secretary-Treasurer Student Activities | F. Louis H.M. Stumpers (Benelux) C. Reginald Russell F. Wim de Vrijer O.W. Memelink (1975) / Jean-Gabriel Rémy (1976) |
| 1977–1978 | Director Vice Chair Secretary-Treasurer Student Activities | E. Folke Bolinder (Sweden) F. Louis H.M. Stumpers F. Wim de Vrijer (1977) / R.C. (Bob) Winton (1978) Jean-Gabriel Rémy (1977) / André S. Vander Vorst (1978) |
| 1979–1980 | Director Vice Chair Secretary-Treasurer Student Activities | Dick C.J. Poortvliet (Benelux) E. Folke Bolinder R.C. (Bob) Winton André S. Vander Vorst |
| 1981–1982 | Director Vice Chair Secretary Treasurer Student Activities | Walter E. Proebster (Germany) Dick C.J. Poortvliet R.C. (Bob) Winton Herbert A. May André S. Vander Vorst |

3.1 Operating Committees

Starting in 1983, the new Regional Director was elected one year earlier, to serve as Director-Elect for one year prior to the actual term as Director. In 1984, this position was called Vice Chair.

| | | |
|------------------|--------------------|--|
| 1983–1984 | Director | Karsten E. Drangeid (Switzerland) |
| | Vice Chair | Walter E. Proebster (1983) / Basil W. Osborne (1984) |
| | Secretary | R.C. (Bob) Winton |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | André S. Vander Vorst (1983) / Dick C.J. Poortvliet (1984) |
| 1985–1986 | Director | Basil W. Osborne (UK and Ireland) |
| | Past Director | Karsten E. Drangeid (1985) |
| | Director-Elect | Hugo Ruechardt (1986) |
| | Secretary | R.C. (Bob) Winton |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | Dick C.J. Poortvliet |
| 1987–1988 | Director | Hugo Ruechardt (Germany) |
| | Past Director | Basil W. Osborne (1987) |
| | Director-Elect | Sven-Olof Öhrvik (1988) |
| | Secretary | Basil W. Osborne |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | Dick C.J. Poortvliet |
| 1989–1990 | Director | Sven-Olof Öhrvik (Sweden) |
| | Past Director | Hugo Ruechardt (1989) |
| | Director-Elect | Kurt R. Richter (1990) |
| | Secretary | Basil W. Osborne |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | Dick C.J. Poortvliet |
| 1991–1992 | Director | Kurt R. Richter (Austria) |
| | Past Director | Sven-Olof Öhrvik (1991) |
| | Director-Elect | Charles W. Turner (1992) |
| | Secretary | Basil W. Osborne |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | Dick C.J. Poortvliet |

At the Spring 1993 meeting, the following changes in the election and appointment procedure were made, with a corresponding bylaw change later that year:

- The Nominations and Appointments (N & A) Committee will present each year, for the approval of the Region 8 Committee, nominations for all Regional Officer and Appointed Representative posts falling vacant. [The 8 Appointed Representatives are: Awards & Recognitions,³ Chapter Coordinator,¹ Conference Coordinator,² Continuing Education,¹ Forward Planning,³ Membership Development,² Region 8 News,³ Student Activities Chairman.² The former position of Industry Liaison is presently vacant.]
- The N & A Committee will comprise the Junior Past Director (Chairman); the Director; the Director-elect (when appropriate); and three Section Chairs, elected by the Section Chairs currently on the Region 8 Committee to serve a two-year term.
- All Region Officers and Appointed Representatives will serve for a three-year term initially, and would be eligible for re-election by the Section Chairs.
- To allow an orderly transition to the new procedures, two Appointed Representative posts will fall vacant at the end of 1993,¹ three at the end of 1994,² and the remaining three at the end of 1995.³ In all cases the retiring members will be eligible for re-election, at the discretion of the Director.

- The Student Representative is appointed for one two-year term of office by the Director, in consultation with the Student Activities Chairman.

| | | |
|------------------|--------------------|---|
| 1993–1994 | Director | Charles W. Turner (UK and Ireland) |
| | Past Director | Kurt R. Richter (1993) |
| | Director-Elect | Peer Martin Larsen (1994) |
| | Secretary | Basil W. Osborne |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | Dick C.J. Poortvliet |

| | | |
|------------------|--------------------|-------------------------------------|
| 1995–1996 | Director | Peer Martin Larsen (Denmark) |
| | Past Director | Charles W. Turner (1995) |
| | Director-Elect | Maurice Papo (1996) |
| | Secretary | Basil W. Osborne |
| | Treasurer | Rolf A. Remshardt |
| | Student Activities | Levent Onural |

Revised Region 8 Bylaws were drafted during 1997 in order to enable a new Region 8 structure to be introduced, and to be compatible with new RAB (Regional Activities Board) Bylaws. Following approval by the Committee in November 1997 and by RAB in February 1998, acting Vice Chairs were appointed for 1998: Vice Chairs for Membership Activities, Technical Activities, and Student Activities. The Past Director is *ex officio* the fourth Vice Chair, for Strategic Planning and Nominations & Appointments. Starting with the Fall 1998 meeting, the three Vice-Chairs are elected by the Region 8 Committee.

| | | |
|------------------|-----------------------|---|
| 1997–1998 | Director | Maurice Papo (France) |
| | Past Director | Peer Martin Larsen (1997) |
| | Director-Elect | Rolf A. Remshardt (1998) |
| | Secretary | Basil W. Osborne |
| | Treasurer | Rolf A. Remshardt / Hans J. Schmitt (1998) |
| | Membership Activities | Peer Martin Larsen (acting Vice Chair in 1998) |
| | Student Activities | Levent Onural (remains active Vice Chair in 1998) |
| | Technical Activities | Charles W. Turner (acting Vice Chair in 1998) |

| | | |
|------------------|-----------------------|--|
| 1999–2000 | Director | Rolf A. Remshardt (Germany) |
| | Past Director | Maurice Papo |
| | Director-Elect | Levent Onural (2000 only) |
| | Secretary | Basil W. Osborne (1999) / Charles W. Turner (2000) |
| | Treasurer | Hans J. Schmitt |
| | Membership Activities | Raul F.M. Vidal (1999) / Adolf Schwab (2000) |
| | Student Activities | Gözde Bozdağı Akar |
| | Technical Activities | Kurt R. Richter |

| | | |
|------------------|-----------------------|--------------------------------|
| 2001–2002 | Director | Levent Onural (Turkiye) |
| | Past Director | Rolf A. Remshardt |
| | Director-Elect | Anthony C. Davies (2002 only) |
| | Secretary | Charles W. Turner |
| | Treasurer | Hans J. Schmitt |
| | Membership Activities | Gerhard Hancke |
| | Student Activities | Christian Borgert |
| | Technical Activities | Anthony C. Davies |

| | | |
|--|-----------------------|--|
| 2003–2004 | Director | Anthony C. Davies (UK and Ireland) |
| | Past Director | Levent Onural |
| | Director-Elect | Baldomir Zajc (2004 only) |
| | Secretary | Charles W. Turner |
| | Treasurer | Hans J. Schmitt |
| | Membership Activities | Rolf A. Remshardt |
| | Student Activities | Pilar Molina Gaudó |
| | Technical Activities | Tariq Durrani |
| 2005–2006 | Director | Baldomir Zajc (Slovenia) |
| | Past Director | Anthony C. Davies |
| | Director-Elect | Jean-Gabriel Rémy (2006 only) |
| | Secretary | Christian Borgert |
| | Treasurer | Brian Harrington |
| | Membership Activities | Jaafar Al-Ibrahim |
| | Student Activities | Marko Delimar |
| | Technical Activities | Józef W. Modelski |
| 2007–2008 | Director | Jean-Gabriel Rémy (France) |
| | Past Director | Baldomir Zajc |
| | Director-Elect | Józef W. Modelski (2008 only) |
| | Secretary | Christian Borgert (2007) / Costas Stasopoulos (2008) |
| | Treasurer | Brian Harrington |
| | Membership Activities | Marko Delimar |
| | Student Activities | Martin J. Bastiaans |
| | Technical Activities | George Paunović |
| <p>Starting in 2008, the Director-Elect was elected one year earlier, to serve as Director-Elect for two years prior to the actual term as Director.</p> | | |
| 2009–2010 | Director | Józef W. Modelski (Poland) |
| | Past Director | Jean-Gabriel Rémy |
| | Director-Elect | Marko Delimar |
| | Secretary | Costas Stasopoulos |
| | Treasurer | Brian Harrington |
| | Membership Activities | Pilar Molina Gaudó |
| | Student Activities | Eva Lang |
| | Technical Activities | Rami Al-Mushcab (2009) / Fritz Bekkadal (2010) |
| 2011–2012 | Director | Marko Delimar (Croatia) |
| | Past Director | Józef W. Modelski |
| | Director-Elect | Martin J. Bastiaans |
| | Secretary | Costas Stasopoulos |
| | Treasurer | Brian Harrington |
| | Member Activities | Ali El-Mousa |
| | Student Activities | Elias Nassar |
| | Technical Activities | Saurabh Sinha |

| | | |
|------------------|--|---|
| 2013–2014 | Director Past Director Director-Elect Secretary Treasurer Member Activities Student Activities Technical Activities | Martin J. Bastiaans (Benelux) Marko Delimar Costas Stasopoulos Ali El-Mousa Brian Harrington Aleksandar Szabo Pablo Herrero Carl Debono |
| 2015–2016 | Director Past Director Director-Elect Secretary Treasurer Member Activities Student Activities Technical Activities | Costas Stasopoulos (Cyprus) Martin J. Bastiaans Margaretha Eriksson Christian Schmid Brian Harrington Dušanka Bošković Mona Ghassemian Igor Kuzle |
| 2017–2018 | Director Past Director Director-Elect Secretary Treasurer Member Activities Student Activities Technical Activities | Margaretha Eriksson (Sweden) Costas Stasopoulos Magdalena Salazar Palma Jan Verveckken Ralph Kennel Antonio Luque Efthymia (Femia) Arvaniti Christopher James |
| 2019–2020 | Director Past Director Director-Elect Secretary Treasurer Member Activities Student Activities Technical Activities | Magdalena Salazar Palma (Spain) Margaretha Eriksson Antonio Luque Ana Maria Madureira Adam Jastrzebski Adeel Sultan Maciej Borówka Sohaib Qamar Sheikh |
| 2021–2022 | Director Past Director Director-Elect Secretary Treasurer Member Activities Student Activities Technical Activities | Antonio Luque (Spain) Magdalena Salazar Palma Vincenzo Piuri Ljupco Karadinov Adam Jastrzebski Sara Barros Simay Akar Péter Nagy |

3.1 Operating Committees

| | | |
|-------------|----------------------|-------------------------------|
| 2023 | Director | Vincenzo Piuri (Italy) |
| | Past Director | Antonio Luque |
| | Director-Elect | Mike Hinchey |
| | Secretary | Ljupco Karadzinov |
| | Treasurer | Adam Jastrzebski |
| | Member Activities | Vinko Lešić |
| | Student Activities | Abdullateef Aliyu |
| | Technical Activities | Marios Antoniou |

3.2 Appointed Representatives – until 1997

| | | |
|--------------------------------|------------------------------|-----------|
| Awards & Recognition | Fritz E. Borgnis | 1968–1970 |
| Awards & Recognition / Fellows | F. Louis H.M. Stumpers | 1971–1973 |
| Awards & Recognition / Fellows | Roger P. Wellinger | 1974–1976 |
| Awards & Recognition | Jean P. Voge | 1977–1980 |
| Awards & Recognition / Fellows | E. Folke Bolinder | 1981–1997 |
| Chapter Coordination | André S. Vander Vorst | 1988–1993 |
| Chapter Coordination | Basil C. Papadias | 1994–1996 |
| Chapter Coordination | Anthony C. Davies | 1997–2000 |
| Conference Coordination | Jacob Baal-Schem | 1981–1994 |
| Conference Coordination | Baldomir Zajc | 1995–2000 |
| Continuing Education | Robert C. Winton | 1968–1970 |
| Continuing Education | André S. Vander Vorst | 1971–1972 |
| Continuing Education | Jean-Gabriel Rémy | 1973–1977 |
| Continuing Education | André S. Vander Vorst | 1978–1978 |
| Continuing Education | Michael A. Giddings | 1979–1982 |
| Continuing Education | Karl F. Goser | 1982–1985 |
| Continuing Education | André S. Vander Vorst | 1986–1990 |
| Continuing Education | G. Molinari | 1991–1993 |
| Educational Activities | Kurt R. Richter | 1994–1999 |
| Electronic Mail | Albert T. Kündig | 1990–1991 |
| Electronic Publishing | Brian R. Harrington | 1996–1998 |
| Electronic Communications | Jacob Baal-Schem | 1996–1997 |
| EUROCON Trust Fund | Fritz Eggimann | 1971–1982 |
| Fellows | Herre Rinia | 1968–1970 |
| Fellows | Roger P. Wellinger | 1977–1978 |
| Fellows | John A. Stegopoulos | 1979–1980 |
| Long Range Planning | Karsten E. Drangeid | 1985–1986 |
| Forward Planning | Robert C. Winton | 1987–1995 |
| Forward Planning | Charles W. Turner | 1996–1997 |
| GOLD Program Coordinator | William Watté | 1997–2000 |
| Industry Liaison | Hugo Ruechardt | 1988–1991 |
| Membership Development | Andreas W. Rannestad | 1973–1976 |
| Membership Development | Dick C.J. Poortvliet | 1977–1978 |
| Membership Development | C.J.M. (Kees) van der Wulp | 1979–1981 |
| Membership Development | Peter Peiser | 1982–1983 |
| Membership Development | Walter E. Proebster | 1984–1997 |
| Newsletter | Robert C.G. Williams | 1967–1986 |
| Publications | Roger P. Wellinger | –1982 |
| Publications | G.J. (Frits) Arink | 1983–1985 |
| Region 8 News Editor | W.H. (Bill) Devenish | 1967–1985 |
| Region 8 News Editor | G.H. (Mick) Byford | 1985–1998 |
| Sections Congress Coordinator | G.J. (Frits) Arink | 1985–1987 |
| Sections Congress Coordinator | J. Costa Freire | 1988–1990 |
| Sections Congress Coordinator | Charles W. Turner | 1997–1999 |
| Student Representative | Mikko Katajamäki | 1988–1990 |
| Student Representative | Gözde Bozdağı | 1991–1992 |
| Student Representative | Roman Mittendorfer | 1993–1994 |
| Student Representative | Andrej Zemva | 1995–1996 |
| Student Representative | Jens Klimaschewski/Hannemann | 1997–1998 |

3.3 Appointed Coordinators and Subcommittee Chairs – 1998–2006

| | | |
|---------------------------------|------------------------------|------------------|
| Awards & Recognition | Hans Peek | 8901 |
| Awards & Recognition | Duncan C. Baker |234.. |
| Awards & Recognition | Kurt R. Richter |56 |
| Chapter Coordination | Anthony C. Davies | 890 |
| Chapter Coordination | Józef Modelski | . . .1234.. |
| Chapter Coordination | Ninoslav Stojadinovic |56 |
| Conference Coordination | Baldomir Zajc | 890 |
| Conference Coordination | Tariq Durrani | . . .12 |
| Conference Coordination | Magdalena Salazar Palma |34.. |
| Conference Coordination | Peter Farkas |56 |
| Educational Activities | Kurt R. Richter | 89 |
| Educational Activities | Aleksandar Szabo | . .0 |
| Educational Activities | Tuncay Birand | . . .1 |
| Educational Activities | Simon Jones |23 . . . |
| Educational Activities | Victor Fouad Hanna |456 |
| Electronic Communications | Christian Borgert | 890 |
| Electronic Communications | Jeremy Newberry | . . .123456 |
| GOLD Program Coordinator | William Watté | 890 |
| GOLD Program Coordinator | Jorge-Luis Sánchez-Ponz | . . .12 |
| GOLD Activities | Mario De Weerd |34.. |
| GOLD Activities | Rolf A. Remshardt |56 |
| Industry Relations | Terje Gjengedal |2 |
| Industry Relations | Jean-Gabriel Rémy |3456 |
| Life Members | G.H. (Mick) Byford | 8 |
| Life Members | Jacob Baal-Schem |456 |
| Membership Development | Peer Martin Larsen | 890 |
| Membership Development | Jaafar Al-Ibrahim | . . .12 |
| Membership Development | Margaretha Eriksson |34.. |
| Membership Development | Aleksandar Szabo |56 |
| Region 8 News Editor | G.H. (Mick) Byford | 8 |
| Region 8 News Editor | Duncan C. Baker | 8901 |
| Region 8 News Editor | Roland J. Saam |23456 |
| Sections Congress Coordinator | Charles W. Turner | 89 |
| Sections Congress Coordinator | Rolf A. Remshardt | . .012 |
| Sections Congress Coordinator | Christian Borgert |345. |
| Sections Congress Coordinator | Anthony C. Davies |6 |
| Sections 99 Coordinator | Jaafar Al-Ibrahim | . .012 |
| Sections Development | Jaafar Al-Ibrahim |3 . . . |
| Standards Coordinator | Ingo Ruesch |23456 |
| Student Representative | Jens Klimaschewski/Hannemann | 8 |
| Student Representative | Jorge-Luis Sánchez-Ponz | .90 |
| Student Representative | Giorgia German | . . .12 |
| Student Representative | Başak Yüksel |34.. |
| Student Representative | Ricardo Varela Iglesias |56 |
| Voluntary Contribution Fund | Charles W. Turner | .9 |
| Voluntary Contribution Fund | Zbynek Skvor | . .01234.. |
| Voluntary Contribution Fund | Vlatko Stoilkov |56 |

3.4 Appointed Coordinators and Subcommittee Chairs – 2007–2012

| | | |
|---------------------------------|--------------------------------|--------|
| Awards & Recognition | Victor Fouad Hanna | 7890.. |
| Awards & Recognition | Charles W. Turner |12 |
| Chapter Coordination | Gérard Capolino | 78.... |
| Chapter Coordination | Péter Magyar | ..90.. |
| Chapter Coordination | Daniel Pasquet |12 |
| Conference Coordination | Francisco Sandoval | 78.... |
| Conference Coordination | Marian P. Kaźmierkowski | ..90.. |
| Conference Coordination | Carl Debono |12 |
| Educational Activities | Charles W. Turner | 7..... |
| Educational Activities | Fanny Klett | .8.... |
| Educational Activities | João Costa Freire | ..90.. |
| Educational Activities | Bakr Hassan |12 |
| Electronic Communications | Thomas Watteyne | 78.... |
| Electronic Communications | George Michael | ..9012 |
| GOLD Activities | Pilar Molina Gaudó | 7..... |
| GOLD Activities | Eva Gutsmedl Lang | .8.... |
| GOLD Activities | João Carlos Prazeres Figueiras | ..90.. |
| GOLD Activities | Salima Kaissi |12 |
| History Activities | Jacob Baal-Schem | 7890.. |
| History Activities | Aleksandar Szabo |12 |
| Industry Relations | Rami Al-Mushcab | 78.... |
| Industry Relations | Benito Palumbo | ..90.. |
| Industry Relations | Ghaleb Al-Dandan |12 |
| Information Management | Diogo Mónica |12 |
| Jubilee Book | Kurt R. Richter |12 |
| Life Members | Peter Hill | 78.... |
| Life Members | Jacob Baal-Schem | ..90.. |
| Life Members | Aleksandar Szabo |12 |
| Membership Development | Rolf A. Remshardt | 78.... |
| Membership Development | Aleksandar Szabo | ..90.. |
| Membership Development | Dirk Van Hertem |12 |
| Professional Activities | Charles W. Turner | 78.... |
| Professional Activities | Emine Gökçe Aydal | ..90.. |
| Professional Activities | Matej Zajc |12 |
| Publications Coordinator | Stefano Zanero |12 |
| Region 8 News | Roland J. Saam | 789012 |
| Region 8 News | Zhijia Huang |12 |
| Section Development | Vlatko Stoilkov | 78.... |
| Section Presentation | Baldomir Zajc | 7..... |
| Sections Congress Coordinator | Anthony C. Davies | 78.... |
| Sections Congress Coordinator | Pilar Molina Gaudó | ..901. |
| Sections Congress Coordinator | Ali El-Mousa |1. |
| Standards Coordinator | David Law | 789012 |
| Student Representative | Michael Gloegl | 7..... |
| Student Representative | Pablo Herrero | .89... |
| Student Representative | Amélie Anglade | ...0.. |
| Student Representative | Jorge Soares |12 |
| Technical Committees Liaison | Vladimir Katić |12 |
| Voluntary Contribution Fund | Christine Nora | 789... |
| Voluntary Contribution Fund | Milan Polivka | ...0.. |
| Voluntary Contribution Fund | Vlatko Stoilkov |12 |
| Women In Engineering | Maryam Al Thani | 78.... |
| Women In Engineering | Shaimaa Yehia | ..9... |
| Women In Engineering | Bashayer Al Awwad | ...0.. |
| Women in Engineering | Ferdi Ponci |12 |
| Workshop Coordinator | Matej Zajc | 78.... |

3.5 Appointed Coordinators and Subcommittee Chairs – 2013–2018

| | | |
|---------------------------------------|--|--------|
| Africa Area Chair | Gloria Chukwudebe | ...678 |
| Awards & Recognition | Charles W. Turner | 34.... |
| Awards & Recognition | Marko Delimar | ..56.. |
| Awards & Recognition | Costas Stasopoulos |78 |
| Chapter Coordination | Elya Joffe | 34.... |
| Chapter Coordination | Nazih Khaddaj Mallat | ..56.. |
| Chapter Coordination | Amara Amara |78 |
| Conference Coordination | Jan Haase | 34.... |
| Conference Coordination | Adel Alimi | ..56.. |
| Conference Coordination | Péter Nagy |78 |
| Educational Activities | Niovi Pavlidou | 34.... |
| Educational Activities | Manuel Castro | ..56.. |
| Educational Activities | Sohaib Qamar Sheikh |78 |
| Electronic Communications | George Michael | 345678 |
| Young Professionals (GOLD) | Rafal Sliz | 34.... |
| Young Professionals (GOLD) | Flavia Dinca | ..56.. |
| Young Professionals (GOLD) | Sara Barros |78 |
| History Activities | Anthony C. Davies | 345678 |
| Humanitarian Activities | Alexandros Osana | ...678 |
| Humanitarian Activities | John Funso Abedayo |8 |
| Industry Relations | Andreas Neumeier | 3.... |
| Industry Relations | Terje Gjengedal | .4.... |
| Industry Relations | Nihal Sinnadurai | ..56.. |
| Industry Relations | Marios Antoniou |78 |
| Jubilee Book | Kurt R. Richter | 3.... |
| Life Members | Jacob Baal-Schem | 34.... |
| Life Members | Charles W. Turner | ..5678 |
| Life Members | Victor Fouad-Hanna |8 |
| Membership Development | Antonio Luque Estepa | 34.... |
| Membership Development | Adeel Sultan | ..56.. |
| Membership Development | Andrejs Romanovs |78 |
| Professional Activities | Jan Verveckken | 3.... |
| Professional Activities | Urmet Jänes | .4.... |
| Professional Activities | Ana Katalinić | ..56.. |
| Professional Activities | Jan Haase |78 |
| Region 8 News | Roland J. Saam | 345678 |
| Region 8 News | Zhijia Huang | 345678 |
| Region 8 News | Alistair Dabbs |8 |
| Region 8 Today | Stamatis Dragoumanos |8 |
| Region Development – Section Vitality | Costas Stasopoulos (Director-Elect) | 34.... |
| Region Development – Region Vitality | Aleksandar Szabo | ..5678 |
| Sections Congress Coordinator | Saurabh Sinha | 3.... |
| Sections Congress Coordinator | Athanassios Skodras | 34.... |
| Sections Congress Coordinator | Marko Delimar | ...67. |
| Social Media and Web Pages | Youmna El-Bitar | ..56.. |
| Social Media and Web Pages | Dora Fourou |78 |
| Standards Coordinator | David Law | 345678 |
| Strategic Planning | Margaretha Eriksson (Director-Elect) | ..56.. |
| Strategic Planning | Magdalena Salazar Palma (Director-Elect) |78 |
| Student Representative | Christian Schmid | 34.... |
| Student Representative | Efthymia Arvaniti | ..56.. |
| Student Representative | Inês Inácio |78 |
| Voluntary Contribution Fund | Daniel Pasquet | 34.... |
| Voluntary Contribution Fund | Adam Jastrzebski | ..5... |
| Voluntary Contribution Fund | Péter Kádár | ...6.. |
| Voluntary Contribution Fund | Andreas Koltès |78 |
| Women In Engineering | Joyce Mwangama | 34.... |
| Women In Engineering | Simay Akar | ..5... |
| Women In Engineering | Taqua Khairy Saeed | ...6.. |
| Women In Engineering | Youmna El-Bitar |78 |

3.6 Appointed Coordinators and Subcommittee Chairs – 2019–2022

| | | |
|--|--------------------------------|------|
| Africa Council Chair | Gloria Chukwudebe | 9... |
| Africa Council Chair | Vincent Kaabunga | .01. |
| Africa Council Chair | Adel Alimi | ...2 |
| Action for Industry | Marios Antoniou | 90.. |
| Action for Industry | John Matogo | ..12 |
| Awards & Recognition | Margaretha Eriksson | 90.. |
| Awards & Recognition | Magdalena Salazar Palma | ..12 |
| Careers New Initiative | Mohamed Amin | ..12 |
| Chapter Coordination | Albert Lysko | 90.. |
| Chapter Coordination | Andrejs Romanovs | ..12 |
| Conference Coordination | Ljupco Karadzinov | 90.. |
| Conference Coordination | Habib Kammoun | ..12 |
| Diversity, Equity and Inclusion | Mona Ghassemian | ..12 |
| Electronic Communications | George Michael | 9012 |
| Electronic Communications Assistant | Maria Efthymiou | .012 |
| Finance | Adam Jastrzebski | 9012 |
| History Activities | Anthony C. Davies | 90.. |
| History Activities | Martin Bastiaans | ..12 |
| Humanitarian Activities | John Funso-Adebayo | 90.. |
| Humanitarian Activities | Abdulateef Aliyu | ..12 |
| Life Members | Victor Fouad-Hanna | 90.. |
| Life Members | Péter Magyar | ..12 |
| Membership Development | Ievgen Pichkalov | 90.. |
| Membership Development | Mike Hinchey | ..12 |
| New Industry Events Initiative | Nihal Sinnadurai | ..1. |
| New Student Contests Initiative | Lee Crudgington | ..12 |
| Professional and Educational Activities | Stamatis Dragoumanos | 90.. |
| Professional and Educational Activities | Conrad Attard | ..12 |
| Publications and Communications | Christopher James | 90.. |
| Publications and Communications | Adeel Sultan | ..12 |
| Region 8 News | Alistair Dabbs | 90.. |
| Region 8 News | Cátia Bandejas | ..12 |
| Region 8 News | Vinko Lešić | ...2 |
| Region 8 Sigma | Christopher James | ..1. |
| Region 8 Today | Stamatis Dragoumanos | 90.. |
| Region 8 Today | Hazar Oklah | ..12 |
| Region Vitality | Aleksandar Szabo | 9... |
| Region Vitality | Matej Zajc | .012 |
| Secretary Assistant | Miguel Castanheira Marques | 90.. |
| Section Vitality | Andreas Koltès | 90.. |
| Sections Congress Coordinator | Costas Stasopoulos | 9012 |
| SYP/xSYP Congress Coordinator | Barbara Vujkov | ..12 |
| Social Media | Dora Fourou | 90.. |
| Social Media | Mohammad Hossain Babae | ..12 |
| Standards Coordinator | David Law | 90.. |
| Standards Coordinator | Tuncer Baykas | ..12 |
| Strategic Planning | Antonio Luque (Director-Elect) | 90.. |
| Strategic Planning | Magdalena Salazar Palma | ..12 |
| Student Representative | George Papadimitriou | 90.. |
| Student Representative | Theodoros Chatzinikolaou | ..12 |
| Voluntary Contribution Fund | Andreas Koltès | 9012 |
| Women In Engineering | Ana Cigarán Romero | 90.. |
| Women In Engineering | Maria Alexandra Paun | ..12 |
| Young Professionals | Vinko Lešić | 90.. |
| Young Professionals | Almedin Kavaz | ..12 |
| Zone Representative (Africa) | Habib Kammoun | ...2 |

3.7 Appointed Coordinators and Committee Chairs – 2023

| | | | |
|----|--|-------------------------------------|--------|
| 9 | Action for Industry | Toni Mattila | 3..... |
| * | Alternate Membership Payments | Nadine Abbas | 3..... |
| 3 | Awards & Recognition | Antonio Luque | 3..... |
| * | Career Planning / Careers New Initiative | Mohamed Amin | 3..... |
| 5 | Chapter Coordination | Anna Litvinenko | 3..... |
| * | Climate Change | Paul Cunningham | 3..... |
| 4 | Conference Coordination | Tiziana Tambosso | 3..... |
| * | Continu>Ed | Vincenzo Kaabunga | 3..... |
| * | Cooperation with IEEE S/Cs and National Associations | Ilhem Kallel | 3..... |
| * | Cross-section Technical Cooperation | Nadezhda Kunicina | 3..... |
| 17 | Diversity, Equity and Inclusion | Gheith Abandah | 3..... |
| * | Educational Infrastructures | Albert Lysko | 3..... |
| | Electronic Communications | George Michael | 3..... |
| | Electronic Communications Assistant | Maria Efthymiou | 3..... |
| * | Engineering Projects in Community Service | Samarth Deo | 3..... |
| 18 | Entrepreneurship | Rawane El Jamal | 3..... |
| * | Fellow Members Search | Maria Teresa Correia de Barros | 3..... |
| 15 | Finance | Adam Jastrzebski | 3..... |
| 16 | History Activities | Martin Bastiaans | 3..... |
| 12 | Humanitarian Activities | Theodoros Panagiotis Chatzinikolaou | 3..... |
| * | IEEE Milestones Awareness | Claire Lajoie-Mazenc | 3..... |
| 14 | Life Members | Péter Magyar | 3..... |
| 6 | Membership Development | Mariya Antyufeyeva | 3..... |
| | New Social Media | Kassiani Nikolopoulou | 3..... |
| 2 | Nominations & Appointments | Antonio Luque | 3..... |
| 10 | Professional and Educational Activities | Andrejs Romanovs | 3..... |
| 13 | Publications and Communications | Adeel Sultan | 3..... |
| | R8 Advisory | Vincenzo Piuri | 3..... |
| | Region 8 News | Maja Matijašević | 3..... |
| | Region 8 Today | Fatma Zamil | 3..... |
| | Region Vitality Coordinator | Matej Zajc | 3..... |
| | SAC Contests, Awards and Recognitions | Vera Markovic | 3..... |
| | SAC Training and Leadership Support | Khaldoun Taktak | 3..... |
| | SAC New Initiatives | Vildana Hrnjić | 3..... |
| | Sections Congress Coordinator | Costas Stasopoulos | 3..... |
| * | Senior Members Search | Dužanka Bošković | 3..... |
| | Social Media | Mohammad Hossain Babae | 3..... |
| * | Standards Coordination | Tuncer Baykas | 3..... |
| 1 | Strategic Planning | Antonio Luque | 3..... |
| 8 | Student Activities | Abdullateef Aliyu | 3..... |
| | Student Representative | Maryam Saeed | 3..... |
| * | Subsections Strategic Development | Sanja Lazarova-Molnar | 3..... |
| * | Territories in Crisis | | 3..... |
| | Voluntary Contribution Fund | Andreas Koltas | 3..... |
| * | Volunteers Pipeline | | 3..... |
| | Web | Nick Wainwright | 3..... |
| 11 | Women In Engineering | WaFā Ben Hmida | 3..... |
| 7 | Young Professionals | Inês Inácio | 3..... |
| | Africa Council Chair | Adel Alimi | 3..... |
| | Zone Representative (Africa) | Habib Kammoun | 3..... |

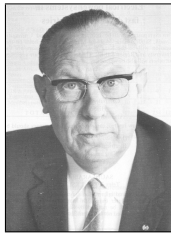
Standing Committee / Coordinator

Standing Committee with corresponding members only (# 14, 16, 17, 18)

Committee numbering according to the Region 8 Operations Manual, Section 6.1

* AdHoc Committees established in 2023

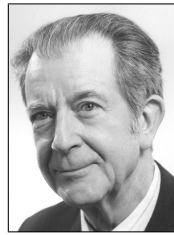
3.8 Past Directors gallery



Rinia†



Lebel†



Williams†



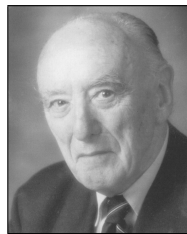
Wellinger†



Jespers



Russell



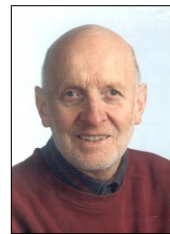
Stumpers†



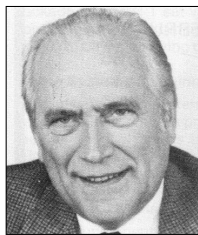
Bolinder†



Poortvliet†



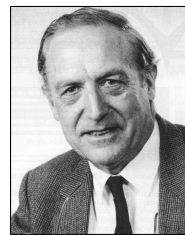
Proebster†



Drangeid†



Osborne†



Ruechardt†



Öhrvik†



Richter



Turner



Larsen†



Papo†



Remshardt†



Onural

- | | |
|--------------------------|---|
| † Herre Rinia | Cornwerd 30-03-1905 / Eindhoven 29-05-1985 |
| † Jean D. Lebel | Paris 11-09-1927 / Saint-Rémy-l'Honoré 13-02-2021 |
| † Robert C.G. Williams | London 28-12-1907 / Guildford 25-03-2000 |
| † Roger Wellinger | Schaffhausen 06-07-1919 / Neuchâtel 30-10-2014 |
| † F. Louis H.M. Stumpers | Eindhoven 30-08-1911 / Eindhoven (?) 30-09-2003 |
| † E. Folke Bolinder | Uppsala 11-08-1922 / Göteborg 01-03-2018 |
| † Dick C.J. Poortvliet | Poortvliet 14-01-1935 / Limassol, Cyprus 25-06-1995 |
| † Walter Proebster | Mannheim 02-04-1928 / Osnabrück (?) 30-08-2020 |
| † Karsten E. Drangeid | ? 24-03-1925 / Hedingen (?) 04-06-2018 |
| † Basil W. Osborne | Buenos Aires, Argentina 1925 / Banstead, Surrey, England (?) 09-02-2018 |
| † Hugo Ruechardt | ? 30-12-1927 / Gauting (Munich) (?) 03-05-1992 |
| † Sven-Olof Öhrvik | Stockholm 14-10-1928 / Stockholm 15-04-2014 |
| † Peer Martin Larsen | ? 31-03-1933 / ? 08-12-2020 |
| † Maurice Papo | ? / ? 04-2021 |
| † Rolf A. Remshardt | ? 03-10-1936 / Böblingen 16-07-2013 |



Davies



Zajc



Rémy



Modelski



Delimar



Bastiaans



Stasopoulos



Eriksson



Salazar Palma



Luque

4 Personal reflections of Past Directors

Past Directors have been asked to write down some personal reflections of their time as Director. Moreover, oral history interviews have been carried out with Bruce B. Barrow – http://ethw.org/Oral-History:Bruce_Barrow – and with the following Past Directors:

- Jean D. Lebel – http://ethw.org/Oral-History:Jean_Lebel
- Robert C.G. Williams, together with Gordon H. (Mick) Byford and Bob Winton – http://ethw.org/Oral-History:Mick_Byford,_Robert_Williams_and_Bob_Winton
- C. Reginald Russell – http://ethw.org/Oral-History:Reginald_Russell
- Walter Proebster – http://ethw.org/Oral-History:Walter_Proebster
- Basil W. Osborne – http://ethw.org/Oral-History:Basil_Osborne
- Kurt R. Richter – to be published
- Peer Martin Larsen – to be published
- Rolf A. Remshardt – http://ethw.org/Oral-History:Rolf_Remshardt
- Levent Onural – http://ethw.org/Oral-History:Levent_Onural
- Baldomir Zajc – http://ethw.org/Oral-History:Baldomir_Zajc

Transcripts of these interviews are available on the Engineering and Technology History Wiki (ETHW).

4.1 Jean D. Lebel (Director 1965-1966)

For the contribution of Jean Lebel, we refer to the paper “Setting up the basis for Region 8” that he presented at HISTELCON 2012, see Sect. 10.

4.2 Rolf Remshardt (Treasurer 1983–1998, Director 1999–2000)

Memories of my time as R8 Treasurer (1983–1998)

I started my career as active IEEE volunteer in the position of the R8 Treasurer. Region 8 Director Walter Proebster had asked me to assume the responsibility of the Treasurer for our region. After accepting this responsibility, he invited me to attend my first R8 Committee Meeting 1983 in Athens, Greece at MELECON 1983. At the meeting I became elected and took over from Dr. Mai, who served as Treasurer only for 1-2 years. I received the old documents from R.C. Winton, who served as R8 Secretary and Treasurer for many years up to 1981.

When I started with my new job, the annual Region 8 budget showed an amount of \$ 25 000 and consisted only of a few handwritten pages. The financial status of R8 was relatively poor at this time. IEEE HQ did not regularly transfer our money and there was not even enough cash on the bank to reimburse the travel expenses of our section chairs in Athens. Significant improvements were necessary. After my queries IEEE increased the Direct Support for our region and provided more regular payments. The main problem, however, was that we received our income in US dollars and our expenses had to be paid mostly in European currencies.

Our net income depended therefore very much on the varying exchange rates. As an example one US dollar was equivalent to 3.30 DM (Deutsche Mark) at that time. From 1985 to 1987 the exchange rate decreased to 1.70 DM and went even further down some years later. Our net income in European currency had decreased by more than 50 % and I was not able anymore to pay for our regular R8 expenses. We had to extend our income and I recommended to increasing the R8 assessment from \$7 to \$11. The assessment is money that has to be paid by our members together with the IEEE dues and is supporting directly the region. This caused a lot of discussions in the R8 Committee because it increased the cost for our members. Finally

it was accepted and it took another two years for approval by the IEEE Board of Directors. The assessment increase guaranteed a solid financial situation in our region for a very long time.

It was also time to stop the manual bookkeeping and introduce first simple programs for budget and finance control with computers.

It was my job during all the years to annually estimate our income and generate a balanced R8 budget, to finance and control the many activities in our sections, chapters, student branches, and conferences. Due to the geographically large region and the continuously increasing number of sections, the size of our R8 Committee grew from year to year and the cost of the R8 Committee meetings, which included airfares, hotel accommodation and meals became a major part of our expenses. We had to select larger and more expensive hotels and hotel chains, which could accommodate all committee members and guests and offered larger conference rooms for our meetings. In particular R8 meetings outside the region, like the visit of a Sections Congress in the United States, became more difficult to finance. During my 15 years as Treasurer the annual R8 budget developed from US\$ 25 000 to over US\$ 600 000.

When I became R8 Director for 1999 and 2000 I was glad that Prof. Hans Schmitt stepped in as successor in 1998 and continued with my work. Nowadays our R8 budget has reached more than three quarter of a million US Dollar and is operated by Brian Harrington in England with the latest financial computer programs.

It was a very interesting time to handle and control the finances of our global region and I enjoyed it very much.

Memories of my time as R8 Director (1999–2000)

A few colleagues encouraged me to run for the position of R8 Director. I did and became elected as Director for 1999 and 2000. One of the most interesting parts of this position is the chance to promote activities in the region and set priorities for things you personally believe are important and have been neglected in the past.

During my term I wanted to focus my work on the needs and problems of our members in particular also of those in the Near and Middle-East of our region as well as in countries of Africa. I wanted to better understand the kind and nature of their problems and find ways how we might be able to help. At this time there were not many IEEE activities in these areas and I believe IEEE had not given much attention to them. So I wanted to encourage those members in particular also the students and young people to start more activities in their sections, chapters, and branches and increase membership.

The best opportunity to achieve this was by visiting the members in this region and meet and talk with them. I visited the United Arab Emirates (Dubai, Abu Dhabi) Oman, Kuwait, and Saudi Arabia and was invited to attend a GCC (Gulf Cooperation Council) meeting. The three IEEE sections, Saudi Arabia, UAE, and Kuwait are members of this council providing close cooperation in the fields of Electrical Engineering. I also attended the “IEEE Technical Exchange Meeting” at King Fahd University in Dhahran and presented IEEE Overviews at all visits. Another trip was to the section of South Africa, to Johannesburg, Capetown, and the University of Stellenbosch. I enjoyed a very warm welcome in all sections and met with highly motivated and enthusiastic members. All were interested in education and to learn about the latest innovations in technology and looking for IEEE lecturers to come to their sections. The IEEE dues payment in US currency turned out to be the most significant problem especially for students. We discussed ways how to best solve this issue.

One of my most exciting experiences which is still active in my mind was the trip to Tehran in the Iran Section together with IEEE President Ken Laker. In 1998 we had a very nice Student Branch Congress in Istanbul, organized by the Turkish Section in a beautiful campus on top of the Bosphorus. Three students from Iran approached Ken Laker and me and invited us to come to Tehran and visit their section and student branches. To my surprise the President agreed immediately and promised the students that we will come to Iran and asked me to organize a visit for both of us. I mailed the Iran Section Chair, Dr. Ghafoori-Fard and

asked him for permission to visit his section. The political situation in Iran was not very clear at this time and I was told the section chair is a high level person and a member of the Iran Parliament. We received a very kind response letter that the chair would be glad to welcome us in Tehran.

Since we had an official invitation I met with Ken in Frankfurt on 20 February 1999 and we flew together to Tehran with Iran Air. When we got closer to Iran I realized that several passengers – men and women – had changed clothes to Oriental looking dresses. I also detected some small cabins in the plane with carpets on the floor obviously for praying and to change clothes. This was my first impression of a different culture. Arriving in Tehran Dr. Ghafoori-Fard picked us up at the airport and brought us to the hotel in the city. On the next day he invited us to his office at the University and we met with some IEEE section officers. He presented his planned agenda for our visit. It included the visit of several technical universities in Tehran as well as a two days trip to Isfahan, one of the most beautiful cities in Iran. This trip required a flight with a local airline.

On the first day we succeeded to visit two universities of the planned four to five in Tehran. The traffic was chaotic and we had an extensive lunch with our hosts and IEEE section members, which took much longer than planned. All our hosts were more than polite and wanted us to stay the whole day instead of the planned two hours. On the next day Ken Laker gave a technical presentation on electrical circuit design and I had prepared an IEEE overview, describing our organisation, activities, and benefits. We had a large lecture hall at University with an audience of approximately 200 people, most of them students. We faced a situation, which we had never seen before, male students sitting on one side casually dressed in jeans and T-shirts and on the other side of the hall completely separated female students dressed in black gowns and their heads covered with veils or chadors. It was interesting to learn, that universities in Iran have about 50 % female students in Electrical Engineering. I have never seen this in Europe. All students were highly interested in our presentations and asked enthusiastically all kinds of questions after our presentations.

It turned out that we never could make the planned agenda, since we were running out of time and we had to apologize with the other universities in Tehran, we could not visit. The Secretary of the Iran Section accompanied us on our trip to Isfahan. We had half a day for sightseeing and our guide showed us the old part of the beautiful city with its famous mosques and the magnificent mosaic. We had a chance to see local places, study their customs and try to smoke water-pipes.

Isfahan has a modern university and we were invited to give our presentations. It was just a repetition of our experiences in Tehran with respect to the seating and dresses of the students. The next day we had to fly back to Tehran and return to Germany in the following night.

Looking back to this trip it was a unique experience to learn a lot about the people and their culture in this country. We made many friends and both the IEEE President and I were impressed on the students' high interest in technology and their enthusiasm for the profession. We were not used to this in the western hemisphere. As a result of this visit, the amount of IEEE student members and branches grew substantially in the Iran section.

My term as R8 Director did of course not only consist of visits to sections, I had also to organize and manage our two R8 Committee meetings every year. The first one in May 1999 was in Berlin, the old and new capitol of Germany. Some highlights were the Focus Groups, the preparation for Sections Congress 99 (SC 99), the highest membership increase in IEEE and R8, an Accreditation and Abet workshop, and not to forget a sightseeing tour through the restored and renewed city of Berlin without the wall.

My predecessor Maurice Papo had already initiated the IEEE Transnational Committee. The globalization process is one outcome and caused significant steps in 1999. The IEEE Board of Directors Meeting together with the HONOR Ceremony met in London, June 1999 for the first time outside the United States. R8 made another global decision to have the second Committee Meeting together with SC 99 in Minneapolis in the United States. The cost was very high to bring all Committee members to the USA, but they got the unique chance to meet with all their IEEE colleagues worldwide and exchange ideas and activities. The meeting in Minneapolis with the Section Congress was quite a success. Some highlights were the Branding Committee, the Leadership Development Program, discussions on problems with the SAMIEEE database,

and the transition of our R8 News production to IEEE Spectrum in order to save cost.

The third Committee Meeting in May 2000 happened in Oslo, Norway. Some highlights were: IEEE President Bruce Eisenstein presented Millennium Medals to some R8 Officers, goals were defined for a better operation of the IEEE Brussels Office, reports of the successful Student Branch Congress in Eindhoven were given, and the International Student Exchange Program was established.

My fourth and last R8 Committee Meeting was on 14 October 2000 in Cairo, Egypt. It was the 75th R8 Meeting and I had chosen Cairo because we had never been before in Egypt and I wanted to raise more activities in this area. Reports were presented on highlights like: successful MELECON 2000 in Cyprus with R8 Student Paper Contest, high attendance on both Division I+IV R8 chapter meeting in Paris and Division IX chapter meeting in Istanbul, and a visit of the Higher Technical Institute in the 10th of Ramadan City near Cairo. Due to the excellent warm climate in Egypt, we had an open air dinner with view to the illuminated pyramids on Saturday evening and later we attended a special light and music show in front of the pyramids, which is still in our memory as a beautiful souvenir to Cairo. The Committee Meeting concluded on Sunday with Focus Groups and workshops chaired by incoming Director Levent Onural.

I enjoyed my two year term as Regional Director very much. I believe I could reach most of my goals in several areas, I learned a lot on our members and on their problems in the geographically large Region 8. I will never miss this time.

4.3 Anthony C. Davies (Director 2003–2004)

Past IEEE Region 8 Director Memoirs and Recollections

In order to explain adequately my time as Region 8 Director, I will start by providing the context in which I became an IEEE member and active volunteer.

During my army service after leaving school, the standard advice was ‘never volunteer’: it will be seen that I did not take this advice!

During my subsequent time as an electrical engineering undergraduate at Southampton University, the Head of Department persuaded me to join a local IEE committee; as a result I met various senior engineers, and had responsibilities to organise ‘events’ which included giving a lecture-demonstration on frequency modulation. Preparation included library searches, by which I became very familiar with and impressed by the IRE Proceedings and other IRE publications. Later, working for the General Electric Co. at Coventry, I regularly used IRE Transactions, etc. and followed the discussions about the AIEE-IRE merger.

Over all this time, I had no expectation of joining as a member. It was after joining academia that I became involved with the local (by then IEEE) UK&RI Circuit Theory Chapter, and joined as a member of IEEE (in 1967). The Chapter was then very active, and when I went to British Columbia for a year (1968–1969), I naturally took interest in what IEEE did locally (actually not much, but far more than the local IEE branch in Vancouver, which did nothing at all).

On return to England, I became deeply involved in the organisation of an IEEE conference in London: this brought me into personal contact with many of the key people in my research field (some later became IEEE Society Presidents, etc.). The conference was the first held by the IEEE Circuit Theory Group (now CAS Society) outside the USA, and its success initiated the regular holding of ISCAS in many locations around the world.

Since then, being an active ‘IEEE volunteer’ has been a part of my life, and I would say that the two features which I liked best were its international/transnational nature and its distributed management, whereby junior, local people (such as myself) had the freedom and power to initiate, arrange and control local events. This was a big contrast to IEE, in which I was also a volunteer in various ways, which had very rigid centralised control.

I became involved at the UK&RI Section level as a result of being asked to assist with the business of Conference Sponsorship: at that time, the Section received many invitations to co-sponsor conferences, from IEE, Institute of Physics, etc., and this usually required finding a suitably-qualified IEEE member to serve on the organising committee as IEEE representative.

Attending IEEE conferences in USA was generally too expensive for me. However, the start of cheap flights by Laker Airways enabled me to attend two conferences in Canada in early 1973. I travelled on the first Laker “advance booking charter” flight, with a round-trip fare of £45 (no added taxes or supplements or surcharges then!). Later I went to Purdue University for a year as a visiting professor (1973–1974) – which also brought me into more contact with IEEE members and IEEE events (including the 1974 ISCAS in San Francisco, my first visit to California).

I was invited (at short notice) in April 1978 to attend (as ‘observer’) a R8 Committee meeting in Eindhoven, because they needed a judge for a student paper contest. The R8 Committee was then quite small (the Minutes record an attendance of twenty people), but what left a lasting impression on me was this group of people from many countries, sitting around a big table in the Philips company boardroom, involved in friendly and cooperative discussions of many issues, which struck me as in marked contrast to the way that typical international meetings of politicians take place.

Another relevant memory is a nice visit to IEEE at Piscataway. I was on my way to an IEEE conference in Philadelphia in 1987, and because of some issues connected with an exchange-link between The City University in London and Rutgers University, the suggestion arose that I should visit the latter en route, since that could be done for a small incremental cost. I shared a rented car with a colleague from University of Kent at Canterbury, which we collected at Kennedy Airport, and spent a few days travelling to Philadelphia, visiting Rutgers University on the way. This gave me the opportunity to visit IEEE Piscataway – with which I already had some personal contacts in the part then called ‘IEEE Field Services’ – what later became Regional Activities, I suppose.

The steps towards becoming R8 Director really started in the early 1990s when André Vander Vorst asked me to become the R8 CAS Chapter Coordinator – the aim was to increase the activity of the existing Chapters and encourage the formation of new Chapters where there were sufficient CAS members – this was at a time of many changes and new opportunities which followed the removal of the Berlin Wall. This brought me into regular contact with the R8 Committee by attendance at its meetings (I had attended a few of these meetings previously for various reasons). My activities included arranging Chapter Chairs’ meetings, and forming stronger links with the CAS Society management. Then, e-mail was in its infancy, and my academic-base gave me a better framework for making use of this for international communications. All this led, among other things, to being elected to the CAS Society Board of Governors as Vice President for R8. Being at a time when the Society had rather substantial financial reserves, and an expanding programme of activities, meant that as a member of the CAS ExCom I had the opportunity to attend meetings in all sorts of interesting places which I might otherwise have never visited. I was also elected as UK&RI Section Chair, which of course included attending the R8 Committee meetings, twice per year.

Notable steps along the way towards being elected as R8 Director included attending a meeting of Chapter Chairs in New Orleans, in February 2000. This was followed by the IEEE Board Series meetings, which I was able to remain in New Orleans to observe. I was struck by the scale of this operation: I thought I knew all that mattered about the way IEEE operated, but realised that there was a whole world of activity on a large scale (meetings of TAB, RAB, BoD and many more) about which I had been almost unaware.

Later, a significant step was standing in as a voting member for the CAS President at a TAB meeting when some important issues for CAS were being decided, from which I became better aware of TAB operation.

My success at R8 Chapter Coordination, including the stimulation of new chapters (especially in Eastern Europe where new opportunities were arising) and arranging Chapter Chair meetings, led me to being

elected by the R8 Committee as Vice Chair for Technical Activities. By then I was rather well known to the R8 Committee membership, and was nominated as a candidate for R8 Director.

I suppose that I did not expect to be elected. I did not do any active ‘electioneering’ and thought that it was sufficient to provide my biography and a position statement. I was rather surprised to get a late-evening long-distance phone call from Ray Findlay (then IEEE President), and even more surprised to be told by him that I had been elected (I had not realised that this was the method to inform successful candidates).

I feel that it is somewhat regrettable that now candidates typically spend a huge time and effort (and sometimes much personal money) in promoting their own candidature.

At that time, the Director-Elect term was one year, not two, but I feel that I was very well prepared before that, because of my involvements with the R8 Committee and with the CAS Society in many ways over many years, and because I had met quite a few of the staff from Piscataway at various events. What I also believe is very important is that my ‘connections’ were with both the Technical (e.g. Society) side of IEEE and with the Geographic (e.g. Region) side of IEEE. I feel it is regrettable that some senior volunteers (including some Section Chairs and some Society Board of Governors members) seem to connect with only one of the two.

Three major issues which I remember as being prominent during my time as R8 Director were the IEEE sanctions on Iran members, the Transnational Committee business, and discussions about IEEE Governance (e.g. possible changes to the Board of Directors structure). The Iran sanctions problem was a particularly unwelcome situation, because of the outrage felt particularly by many of the younger members in R8 at what they felt was a failure of IEEE to behave in accordance with its own code of ethics. There seemed a risk that the reactions could spread to the destruction of the very good and active student branch activities throughout R8.

Perhaps my overall memory of my volunteer activity in IEEE, including being a Director, is of ‘meeting interesting and talented people’, which is one of the rewards of IEEE volunteer activities. Specifically, I saw my role on the Board as including keeping the members ‘aware’ of the differences between the needs, wishes, culture and general situation of R8 compared to R1–6 (and to some extent R7). It is important to realise that this was not an attempt to get special favours for R8 (e.g. not what is called ‘pork-barrel politics’). The responsibility of Directors is clearly to IEEE as a whole and not to the Region (or Division) which elected them.

Additionally I saw my role as taking back to the IEEE committees in R8 information about the Board of Directors discussions and decisions, and where appropriate to seek their opinions.

So, in serving IEEE as a Director I perceived my main duties to be

1. to inform the BoD about R8 issues
2. to inform the R8 Committee about activities at the higher levels of IEEE (BoD, RAB, TAB)

and at the same time to generally promote and explain what I considered to be the good features and activities of IEEE. This included travelling to events where I could explain about the structure and achievements of IEEE, and encourage membership development (by which I mean not only getting more members, but helping existing members to get more from their membership, and stimulating Chapter and Student Branch activity).

Within this context. I tried to ‘entertain’ and even ‘educate’ the members of the BoD, by bringing a distinct and different perspective that they might not otherwise have seen. I reported to them a ‘visit to Crna Gora’ specifically to see if any had the courage to ask where it was – none did have the courage, though I am sure that few, if any, knew.

It was a fortunate feature of the airline ticket pricing policies that in many cases, by staying for a Saturday night, it was possible to buy highly discounted tickets, making it economical to stay for extra days in some meeting location (e.g. the saving on the air fare at least paid for added hotel nights). This meant, for example, that I could often attend additional events at a Board Series meeting. I also commonly took the opportunity

to extend my stay at my own expense in order to travel in the vicinity of the meeting place, and so to visit places that I would otherwise never have seen. Perhaps I should add that I have a personal preference for generally using public transport (e.g. buses, trams, etc.) rather than expensive taxi cabs, and it became customary for organisers of some of the meetings to ask me to provide a 'travel advice' document (usually for places that I knew fairly well from previous visits, etc. but sometimes for places which I had never visited myself!) This was before the easy availability of detailed maps and travel data on the internet, which mean that special skills and expertise is no longer needed.

Over many previous years experience of attending international conferences, etc. on a very restricted budget, I had acquired skills in travelling cheaply, and finding low cost air fares, long before the internet made this ability generally available to all.

My recollections of chairing the R8 Committee for the four meetings during which I was Director include:

1. a struggle to finish on time (which was then about 1700 on a Sunday, we spent two full days, including a caucus on Saturday, with various pre-meetings on Friday).
2. trying to get the Section Chairs to actively participate.
3. getting the presentations by Vice-Chairs, etc. to finish on schedule.
4. preparing the main meeting room with the help of the R8 Secretary and others – because the hotels were often only partially ready for us and meeting-room access was sometimes only possible early on the Saturday morning, despite an 0800 meeting-start being usual.

The (informal) policy which I supported was holding the meetings in newly-formed Sections or other Sections where R8 Committee meetings had not previously taken place, and using the smaller meetings (OpCom, N&A Committee, etc.) to visit locations in Sections where it would be impractical to take the whole R8 Committee – for example, Novosibirsk. The importance of this was to find out about the local situation, problems, etc. and especially to meet more of their volunteers (e.g. not only the Section Chairs). I also felt that I had an indirect responsibility to keep expenses within bounds (which included assisting the R8 Treasurer in responding to a few excessive travel-expense claims).

During my two years as Director, the four meetings were held in: Reykjavik, Iceland; Zagreb, Croatia; Kraków, Poland; Stockholm, Sweden.

Being R8 Director involves a great deal of long-distance travel. Fortunately I enjoy travel, and this was possible because I had retired before becoming Director – it would hardly have been possible if I had also had a 'real' job at the same time. Also fortunate is that much of this travel was before the main restrictions and inconveniences which have arisen as a result of the responses to international terrorism. Sometimes my wife travelled with me, and sometimes we used this as an opportunity for some additional vacation travel – on other occasions it was either not convenient for her to travel with me or the meetings were in some obscure place where spending a few days while I was all the time in meetings was not an attraction for her – so I have to acknowledge a very tolerant wife who allowed me to spend a huge amount of time on IEEE matters, including many absences from home over many years!

After my two years as Director, I remained very active as a Past Director, which provided continuing involvement in various ways over several years. However, I think it important to record my belief that 'hanging-on' to IEEE positions needs to be moderated by the need to allow new (and younger) people to have opportunities to be elected to IEEE positions.

I have always promoted the concept that a favourable and essential feature of IEEE is that it is a member-directed, staff-supported organisation (rather than the other way around).

Overall. I am very satisfied with the many interesting opportunities which IEEE brought to me, and I hope that I have contributed something worthwhile in return.

I am somewhat discouraged by some recent trends in IEEE, which seems to be moving towards more centralised control, more rules, and more decisions in the hands of people who have a USA-centred knowledge and outlook.

4.4 Baldomir Zajc (Director 2005–2006)

Memories of my time as member of the IEEE R8 Committee

Chair of the Yugoslavia Section (1987–1992) and Slovenia Section (1992–1995)

My time in the Region 8 Committee was rather long. I came first as the Chairman of the Yugoslavia Section in 1987. Soon, in 1991 Republics of Yugoslavia were becoming independent countries, even having different currencies. All general contacts between them became impossible for quite some time and also the IEEE custody bank-account, which was created for paying IEEE membership dues in Yugoslav Dinar currency, and had existed for 20 years, ceased to be available and so was not functioning for any IEEE members in the manner in which it had previously been used. In 1992 I proposed instead of the existing common Yugoslavia Section the formation of three independent Sections: centered in Ljubljana, Zagreb and Belgrade. Macedonia, Bosnia and Herzegovina had very few members at that time, insufficient for forming Sections. Macedonia got Section status in 1997 after the visit of IEEE President Wally Read to the Bulgaria and the Slovenia Section in 1996, and Bosnia and Herzegovina in 2005 while I served as the Region 8 Director.

In the Slovenia Section I served for the first four years as the Chairman until 1995 when I became Region 8 Conference Committee Chairman.

Region 8 Conference Coordinator (1995–1999)

Regional conferences of the MELECON and AFRICON type went well, but EUROCONs after EUROCON'92 in Zurich had to be cancelled were not so far being continued. I began very slowly to re-establish support for re-starting this type of conference. I was proposing quite new characteristics: beside the usual conference format of only technical papers given by participants, the proposed idea was to have an additional IEEE education program and incorporate the promotion of IEEE activities and membership as an included component. At that time in Central and Eastern Europe as a consequence of the changed political system, conditions were changing and were developing more quickly and some additional scope for professional discussion was obviously needed. The Region 8 Committee decided that a new kind of EUROCON should be reestablished, starting in 2001 in Bratislava. In the beginning the new kind of EUROCON was to be run with much lower organisation and running expenses by locating it on university campuses. In 2003 in Ljubljana, in 2005 in Belgrade and in 2007 in Warsaw the idea was developed further to become successful in a broader sense. Because of success in charging lower fees the number of participants became higher and higher, since more people were able to afford the participation.

IEEE Region 8 Director-Elect (2004) and Director (2005–2006)

In 2004 I was elected as Region 8 Director-Elect. At that time the term of office was just one year. I served as a member in RAB as RAB Liaison to EAB, in EAB N&A Committee, and in the Transnational and Rejuvenation Committees.

The next year, when I became Region 8 Director and so was a Member of RAB and of the BoD, I proposed a change to a two-year term for Director Elect (as several other Regions had already). This term of two years was approved.

In Region 8 we had about 50 Sections at that time. Since many laws and regulations are different in each country only the local people can appreciate and work adequately with them. There were still many countries where an IEEE Section did not exist but in them there were some members willing to start with a Subsection (having the objective of being a 'Section in Development'), or a Chapter or a Student Branch,

operating until there would be sufficient IEEE activity developed and enough members to form a Section. But according to the IEEE Bylaws any such IEEE sub unit (including a Sub-Section) should belong to a Section, and could not exist in isolation. Of course, in such situations no such supervising Section existed. Some Chapters and Student Branches were allowed exceptionally.

Such a function could not be taken over by some other Section from another country because of the defined territory for each Section, which meant it was not considered appropriate for the Section to take charge of sub-units outside its boundaries. The proposal to solve this difficulty was discussed and modified at the RAB and TAB Section Support Committee and the concept of a special “Summation Section” was in our mind such that those Subsections, Chapters, and Branches in an empty territory without its own Section would be allowed and would belong to the R8 Committee, which would play the “Summation Section” role and take the responsibility for them.

In everyday Region 8 Committee activity during these years that I was Director, the usual operation of the Region was continuing and this activity I found very interesting and very challenging.

5 IEEE Region 8 Committee meetings

| year | Spring meeting | Fall meeting |
|------|---|--|
| 1962 | Geneva, Switzerland (IRE Region 9), 06–06 | Geneva, Switzerland (IRE Region 9), 22–10 |
| 1963 | Geneva, Switzerland, 22–04 | Geneva, Switzerland, 04–11 |
| 1964 | Geneva, Switzerland, 27–04 | Geneva, Switzerland, 26–10 |
| 1965 | Geneva, Switzerland, 26–04 | Geneva, Switzerland, 07–09 |
| 1966 | Rome, Italy, 13–04 | Leuven, Belgium, 16–09 |
| 1967 | London, United Kingdom, 22–05 | Lausanne, Switzerland 08–09 |
| 1968 | Paris, France, 02–04 | Tel Aviv, Israel, 24–10 |
| 1969 | Montreux, Switzerland, 24–05 | Brussels, Belgium, 03–10 |
| 1970 | Gothenburg, Sweden, 18–04 | Geneva, Switzerland, 30–10 |
| 1971 | Paris, France, 17–04 | Lausanne, Switzerland, 23–10 |
| 1972 | Madrid, Spain, 12–02 | Louvain-la-Neuve, Belgium, 18–11 |
| 1973 | London, United Kingdom, 06/07–04 | Munich, Germany, 26/27–10 |
| 1974 | Amsterdam, Netherlands, 26/27–04 | Dubrovnik, Yugoslavia, 25/26–10 |
| 1975 | Venice, Italy, 18/19–04 | Zurich, Switzerland, 31–10/01–11 |
| 1976 | London, United Kingdom, 26/27–03 | Athens, Greece, 29/30–10 |
| 1977 | Venice, Italy, 06/07–05 | Madrid, Spain, 09/10–12 |
| 1978 | Eindhoven, Netherlands, 20/21–04 | Split, Yugoslavia, 11/12–11 |
| 1979 | Zurich, Switzerland, 27/28–04 | London, United Kingdom, 09/10–11 |
| 1980 | Friedrichsruhe, Germany, 29/30–03 | Rome, Italy, 21/23–11 |
| 1981 | Herzlia, Israel, 28/29–05 | Dubrovnik, Yugoslavia, 02/03–10 |
| 1982 | Vedbaek, Denmark, 19/20–06 | Versailles, France, 09/10–10 |
| 1983 | Athens, Greece, 27/28–05 | Vienna, Austria, 05/06–11 |
| 1984 | – | London, United Kingdom, 28–09/01–10 |
| 1985 | Herzlia, Israel, 24/25–03 | Madrid, Spain, 12/13–10 |
| 1986 | Enghien (Paris), France, 19/20–04 | Lisbon, Portugal, 27/28–09 |
| 1987 | Rome, Italy, 28/29–03 | Brdo near Kranj (Ljubljana), Yugoslavia, 19/20–09 |
| 1988 | Stockholm, Sweden, 11/12–06 | Munich, Germany, 08/09–10 |
| 1989 | Budapest, Hungary, 08/09–04 | Vienna, Austria, 14/15–10 |
| 1990 | Brussels, Belgium, 12/13–05 | Toronto, Canada, 02/03–10 (at Sections Congress 3) |
| 1991 | Warsaw, Poland, 20/21–04 | Santa Margherita Ligure (Genoa), Italy, 28/29–09 |
| 1992 | Lausanne, Switzerland, 16/17–05 | Istanbul, Turkiye, 03/04–10 |
| 1993 | Vouliagmeni (Athens), Greece, 03/04–04 | Nice, France, 09/10–10 |
| 1994 | Hillerød (Copenhagen), Denmark, 28/29–05 | Prague, Czech Republic, 08/09–10 |
| 1995 | Dun Laoghaire (Dublin), Ireland, 21–05 | Barcelona, Spain, 08–10 |
| 1996 | Espoo (Helsinki), Finland, 02–06 | Denver, CO, USA, 05–11 (at SC 5) |
| 1997 | Rome, Italy, 11–05 | Porto, Portugal, 26–10 |
| 1998 | Piscataway, NJ, USA, 09/10–05 | Larnaca, Cyprus, 17/18–10 |
| 1999 | Berlin, Germany, 08/09–05 | Minneapolis, MN, USA, 11/12–10 (at SC 6) |
| 2000 | Oslo, Norway, 20/21–05 | Cairo, Egypt, 14/15–10 |
| 2001 | Seville, Spain, 03/04–03 | Edinburgh, United Kingdom, 01/02–09 |
| 2002 | Budapest, Hungary, 20/21–04 | Washington, DC, USA, 17–10 (at SC 7) |
| 2003 | Reykjavik, Iceland, 28/29–06 | Zagreb, Croatia, 11/12–10 |
| 2004 | Krakow, Poland, 24/25–04 | Stockholm, Sweden, 02/03–10 |
| 2005 | Paris, France, 16/17–04 | Tampa, FL, USA, 13/14–10 (at SC 8) |
| 2006 | Vilnius, Lithuania, 08/09–04 | Belgrade, Serbia, 14/15–10 |
| 2007 | Sofia, Bulgaria, 14/15–04 | Bucharest, Romania, 13/14–10 |
| 2008 | San Julian, Malta, 26/27–04 | Quebec, Canada, 18/19–09 (at SC 9) |

| year | Spring meeting | Fall meeting |
|------|---|---|
| 2009 | Venice, Italy, 25/26–04 | Lisbon, Portugal, 10/11–10 |
| 2010 | Riga, Latvia, 08/09–05 | Prague, Czech Republic, 09/10–10 |
| 2011 | London, United Kingdom, 26/27–03 | San Francisco, CA, USA, 18/19–08 (at SC 10) |
| 2012 | Berlin, Germany, 31–03/01–04 | Tallinn, Estonia, 6/7–10 |
| 2013 | Madrid, Spain, 20/21–04 | Sarajevo, Bosnia and Herzegovina, 05/06–10 |
| 2014 | Budapest, Hungary, 05/06–04 | Amsterdam, Netherlands, 21/22–08 (at SC 11) |
| 2015 | Limassol, Cyprus, 28/29–03 | Ljubljana, Slovenia, 10/11–10 |
| 2016 | Monte-Carlo, Monaco, 19/20–03 | Porto, Portugal, 24/25–09 |
| 2017 | Stockholm, Sweden, 18/19–03 | Sydney, NSW, Australia, 10/11–08 (at SC 12) |
| 2018 | Athens, Greece, 10/11–03 | Belgrade, Serbia, 20/21–10 |
| 2019 | Valletta, Malta, 16/17–03 | Valencia, Spain, 12/13–10 |
| 2020 | Warsaw, Poland, 21/22–03 – changed to virtual | Virtual meeting, 7–11 and 14–11 |
| 2021 | Virtual meeting, 20/21–03 | Frankfurt, Germany, hybrid meeting, 5/6–11 |
| 2022 | Warsaw, Poland, hybrid meeting, 02/03–04 | Cairo, Egypt, 15/16–10 |
| 2023 | Bucharest, Romania, 25/26–03 | Ottawa, Canada, 11–08 (at SC 14) |

Switzerland 15; Italy 8; UK and Ireland 7+1=8; BeNeLux 4+3+0=7; France 6+1=7; Spain 7; Germany 6

6 IEEE Region 8 conferences

E = EUROCON, M = MELECON, A = AFRICON, C = CompEuro

| year | E | M | A | C | |
|------|----|----|---|---|---|
| 1971 | 1 | | | | EUROCON Lausanne, Switzerland, 18–22 October 1971 |
| 1974 | 2 | | | | EUROCON Amsterdam, Netherlands, 22–26 April 1974 |
| 1977 | 3 | | | | EUROCON Venice, Italy, 3–6 May 1977 |
| 1980 | 4 | | | | EUROCON Stuttgart, Germany, 24–28 March 1980 |
| 1981 | | 1 | | | MELECON Tel Aviv, Israel, 24–28 May 1981 |
| 1982 | 5 | | | | EUROCON Copenhagen, Denmark, 14–18 June 1982 |
| 1983 | | 2 | | | MELECON Athens, Greece, 24–26 May 1983 |
| 1983 | | | 1 | | AFRICON Nairobi, Kenya, 7–9 December 1983 |
| 1984 | 6 | | | | EUROCON Brighton, United Kingdom, 26–28 September 1984 |
| 1985 | | 3 | | | MELECON Madrid, Spain, 8–10 October 1985 |
| 1986 | 7 | | | | EUROCON Paris, France, 21–23 April 1986 |
| 1987 | | 4 | | | MELECON Rome, Italy, 24–26 March 1987 |
| 1987 | | | | 1 | CompEuro Hamburg, Germany, 11–15 May 1987 |
| 1987 | | | 2 | | AFRICON Abidjan, Ivory Coast, 30 November – 2 December 1987 |
| 1988 | | | | 2 | CompEuro Brussels, Belgium, 11–14 April 1988 |
| 1988 | 8 | | | | EUROCON Stockholm, Sweden, 13–17 June 1988 |
| 1989 | | 5 | | | MELECON Lisbon, Portugal, 11–13 April 1989 |
| 1989 | | | | 3 | CompEuro Hamburg, Germany, 8–12 May 1989 |
| 1990 | | | | 4 | CompEuro Tel Aviv, Israel, 8–10 May 1990 |
| 1991 | | | | 5 | CompEuro Bologna, Italy, 13–16 May 1991 |
| 1991 | | 6 | | | MELECON Ljubljana, Yugoslavia, 22–24 May 1991 |
| 1992 | x | | | | EUROCON Zurich, Switzerland, 18–21 May 1992, canceled |
| 1992 | | | | 6 | CompEuro The Hague, Netherlands, 4–8 May 1992 |
| 1992 | | | 3 | | AFRICON Mbabane, Swaziland, 22–24 September 1992 |
| 1993 | | | | 7 | CompEuro Paris-Evry, France, 24–27 May 1993 |
| 1994 | | 7 | | | MELECON Antalya, Turkiye, 12–14 April 1994 |
| 1996 | | 8 | | | MELECON Bari, Italy, 13–16 May 1996 |
| 1996 | | | 4 | | AFRICON Stellenbosch, South Africa, 24–27 September 1996 |
| 1998 | | 9 | | | MELECON Tel Aviv, Israel, 18–20 May 1998 |
| 1999 | | | 5 | | AFRICON Cape Town, South Africa, 28 September – 1 October 1999 |
| 2000 | | 10 | | | MELECON Limassol, Cyprus, 29–31 May 2000 |
| 2001 | 9 | | | | EUROCON Bratislava, Slovakia, 5–7 July 2001 |
| 2002 | | 11 | | | MELECON Cairo, Egypt, 7–9 May 2002 |
| 2002 | | | 6 | | AFRICON George, South Africa, 2–4 October 2002 |
| 2003 | 10 | | | | EUROCON Ljubljana, Slovenia, 22–24 September 2003 |
| 2004 | | 12 | | | MELECON Dubrovnik, Croatia, 12–15 May 2004 |
| 2004 | | | 7 | | AFRICON Gaborone, Botswana, 15–17 September 2004 |
| 2005 | 11 | | | | EUROCON Belgrade, Serbia, 21–24 November 2005 |
| 2006 | | 13 | | | MELECON Benalmádena (Málaga), Spain, 16–19 May 2006 |
| 2007 | 12 | | | | EUROCON Warsaw, Poland, 9–12 September 2007 |
| 2007 | | | 8 | | AFRICON Windhoek, Namibia, 26–28 September 2007 |

CompEuro was organized jointly with the IEEE Computer Society.

E = EUROCON, M = MELECON, A = AFRICON, S = SIBIRCON, H = HISTELCON, N = ENERGYCON

| year | E | M | A | S | H | N | |
|------|----|----|----|---|---|---|---|
| 2008 | | 14 | | | | | MELECON Ajaccio, Corsica, France, 5–7 May 2008 |
| 2008 | | | | 1 | | | SIBIRCON Novosibirsk, Russia, 21–25 July 2008 |
| 2008 | | | | | 1 | | HISTELCON Paris, France, 11–12 September 2008 |
| 2009 | 13 | | | | | | EUROCON St. Petersburg, Russia, 18–23 May 2009 |
| 2009 | | | 9 | | | | AFRICON Nairobi, Kenya, 23–25 September 2009 |
| 2010 | | 15 | | | | | MELECON Valletta, Malta, 25–28 April 2010 |
| 2010 | | | | 2 | | | SIBIRCON Irkutsk Listvyanka, Russia, 11–15 July 2010 |
| 2010 | | | | | 2 | | HISTELCON Madrid, Spain, 3–5 November 2010 |
| 2010 | | | | | | 1 | ENERGYCON Manama, Bahrain, 18–22 December 2010 |
| 2011 | 14 | | | | | | EUROCON Lisbon, Portugal, 27–29 April 2011 |
| 2011 | | | 10 | | | | AFRICON Livingstone, Zambia, 13–15 September 2011 |
| 2012 | | 16 | | | | | MELECON Yasmine Hammamet, Tunisia, 25–28 March 2012 |
| 2012 | | | | | 3 | | HISTELCON Pavia, Italy, 5–7 September 2012 |
| 2012 | | | | | | 2 | ENERGYCON Florence, Italy, 9–12 September 2012 |
| 2013 | 15 | | | | | | EUROCON Zagreb, Croatia, 1–4 July 2013 |
| 2013 | | | 11 | | | | AFRICON Pointe aux Piments, Mauritius, 9–12 September 2013 |
| 2014 | | 17 | | | | | MELECON Beirut, Lebanon, 13–16 April 2014 |
| 2014 | | | | | | 3 | ENERGYCON Dubrovnik, Croatia, 13–16 May 2014 |
| 2015 | | | | | 4 | | HISTELCON Tel Aviv, Israel, 16–21 August 2015 |
| 2015 | 16 | | | | | | EUROCON Salamanca, Spain, 8–11 September 2015 |
| 2015 | | | 12 | | | | AFRICON Addis Ababa, Ethiopia, 14–17 September 2015 |
| 2016 | | | | | | 4 | ENERGYCON Leuven, Belgium, 4–8 April 2016 |
| 2016 | | 18 | | | | | MELECON Limassol, Cyprus, 18–20 April 2016 |
| 2017 | 17 | | | | | | EUROCON Ohrid, Republic of Macedonia, 6–8 July 2017 |
| 2017 | | | | | 5 | | HISTELCON Kobe, Japan, 7–8 August 2017; together with Region 10 |
| 2017 | | | 13 | | | | AFRICON Cape Town, South Africa, 18–20 September 2017 |
| 2018 | | 19 | | | | | MELECON Marrakesh, Morocco, 2–7 May 2018 |
| 2018 | | | | | | 5 | ENERGYCON Limassol, Cyprus, 3–7 June 2018 |
| 2019 | 18 | | | | | | EUROCON Novi Sad, Serbia, 1–4 July 2019 |
| 2019 | | | | | 6 | | HISTELCON Glasgow, United Kingdom, 18–19 September 2019 |
| 2019 | | | 14 | | | | AFRICON Accra, Ghana, 25–27 September 2019 |
| 2020 | | 20 | | | | | MELECON Palermo, Italy, 16–18 June 2020 – changed to online meeting |
| 2020 | | | | | | 6 | ENERGYCON Gammarth, Tunisia, 28 September – 1 October 2020 |
| 2021 | 19 | | | | | | EUROCON Lviv, Ukraine, 6–8 July 2021 – changed to online meeting |
| 2021 | | | 15 | | | | AFRICON Arusha, Tanzania, 13–15 September 2021 – changed to online mtg |
| 2021 | | | | | 7 | | HISTELCON Moscow, Russia, 10–12 November 2021 – changed to online mtg |
| 2022 | | | | | | 7 | ENERGYCON Riga, Latvia, 9–12 May 2022 |
| 2022 | | 21 | | | | | MELECON Palermo, Italy, 14–16 June 2022 – hybrid meeting |
| 2023 | 20 | | | | | | EUROCON Torino, Italy, 6–8 July 2023 |
| 2023 | | | | | 8 | | HISTELCON Florence, Italy, 7–9 September 2023 – hybrid meeting |
| 2023 | | | 16 | | | | AFRICON Nairobi, Kenya, 11–13 September 2023 |
| 2024 | | | | | | 8 | ENERGYCON Doha, Qatar, 4–7 March 2024 |
| 2024 | | 22 | | | | | MELECON Porto, Portugal, 25–27 June 2024 |
| 2025 | 21 | | | | | | EUROCON Gdynia, Poland, 4–6 June 2025 |
| 2025 | | | 17 | | | | AFRICON Abuja, Nigeria, 6–9 September 2025 |
| 2025 | | | | | 9 | | HISTELCON Bonn, Germany, 30 September – 2 October 2025 |

The following contributions – by Fritz Eggimann, Jacob Baal-Schem, and Baldomir Zajc – describe ONLY those confer-

ences organised via the IEEE Region 8 Committee in collaboration with Region 8 Sections (as mentioned in the table above); they do not mention the very large numbers of conferences organised in Region 8 over many years by IEEE Societies, Sections and Chapters.

6.1 EUROCON 71 – Reminiscences by Fritz Eggimann

**EUROCON 71, 18–22 October 1971,
Palais de Beaulieu, Lausanne, Switzerland**

**Fritz Eggimann, IEEE LSM
Chair of the EUROCON 71 Steering Committee**

Basic concept

The initiative to start a big convention within Region 8 of IEEE (just 8 years since its birth) is a brainchild of Roger Wellinger. He had been living in the US for quite many years, working professionally in academia and later at GE Schenectady R&D Labs. Following a call in 1961 from Gerard Bauer, then Chair of the Swiss Watch Industry Association, he came back to Switzerland to build up and lead the pioneering Centre Electronique Horloger (CEH) in Neuchâtel, which has been honoured with a Historical IEEE Milestone in 2002. Leaving the General Manager position there in 1968, he took over the duty as Director of Region 8, keeping a lot of personal contacts within Switzerland's Section.

Roger's idea was to start and establish for the benefit of all Region 8 members (then mostly located in Europe) a periodical trans-national convention, following the example of either the East Coast one in New York or of WESCON in California. At that time my boss at Brown Boveri & C. (the Swiss company later merged into ASEA) was Gustav Guanella, who unfortunately passed away few years afterward. He was also the Chair of Switzerland's IEEE Section. In that capacity he entrusted me with the task of starting a Student Branch at ETH in Zurich (then the only Federal Institute of Technology). Roger asked me bluntly, if I would like to take up the challenge of acting as General Manager of such a European Convention, having of course checked before hand with Gustav Guanella that Brown Boveri would very actively support myself for tackling the task.

After having well considered the proposal, finally I decided to venture into this new direction. Together with Roger we went 1969 to visit IEEE Headquarters in New York, where we were thoroughly coached during many days into the intricacies of organizing, managing and budgeting this truly international convention. I vividly remember the deep discussions we had with Emily Sirjane, then Manager of Membership Services as well as with Richard M. Emberson, Staff Secretary of the Technical Activity Board. They introduced us to all subtleties linked to cultural, human and organizational aspects of large IEEE sponsored conventions. One critical point was financial planning and budgeting, trying to avoid very probable losses. Many international conferences were publishing very expensive proceedings, which met subsequently with very low market demand. So we did, to start with, only print a 500 pages booklet, where the papers were digested into a 2 page presentation.

Starting, Organizing and Implementing EUROCON⁸

There were 3 main points to be addressed:

- Which broad technical subjects could best attract the attention of Region 8 members?
- Who will underwrite and sponsor organization of such a big meeting and where is the best site for carrying it out?

⁸The venue being in French speaking Switzerland, the newly minted name "EUROCON" met with a very cold reception, because of the undesired French meaning of the word "con," which at best sounded like the English "dummy." Note from Hugo Wyss, March 2012.

- How to ensure that major European national engineering associations would join into the effort and support it?⁹

Andreas Rannestad from Norway, Chairing the Technical Program Committee, was able to condense the scope of the convention into following fields:

- Information Processing in Large Systems
- Long Distance Communication
- Solid State Circuits
- Distribution of Electrical Power
- Bio-Medical Engineering
- Electronic Time-Keeping

Alain Jenny from EPUL in Lausanne (the forerunning University of EPFL) was acting as Chair of the Financial Committee as well as local Secretary. He succeeded in enlisting the Palais de Beaulieu as the venue of EUROCON and thanks to the active support of many Swiss IEEE members, he could secure financial grants from many Swiss Industries, totalling about 30'000 Swiss Francs (a sum then convertible into some 7,000 US\$). But also IEEE Headquarters joined into the effort, extending a loan of about 9,000\$! During a night session at Geneva Airport together with Andreas Rannestad we had to clear all the inquiries that Jim Mulligan, then IEEE VP, was bluntly submitting to us, especially with reference to the planned attendance of 750 members. Just crossing the Atlantic he had made a stopover in the UK, visiting the English national association IEE, where he was told in non uncertain terms, that the goal of reaching 600 participants in London (forget about 750) was very unlikely. But at the very end we got 1100 attendees, 900 of which paying and about 100 students. Refunding the loan from Headquarters became unexpectedly easy, we swiftly handed a cheque to the puzzled Jim Mulligan, who was also attending the conference.

Roland Richard, Chair of SEV (Swiss Electrotechnical Association), acting as Chair of the Honorary Committee, successfully got the support from 13 national engineering associations within Europe, who became "supporting societies" of EUROCON. The crowning of the event happened at the closing banquet, when Jim Mulligan bestowed for the first time IEEE Frederik Philips Award (a gold medal) upon the attending principal of the Dutch Philips Gloeilampen N.V. company.

The first EUROCON took off with a roaring financial and technical content success and accumulated a surplus of more than 30'000 Swiss Francs, a carry-over which put all subsequent conventions on a very solid footing.

F. Eggimann, Untersiggenthal, March 2011

6.2 Conference activities in Region 8 – The first 30 years – Jacob Baal Schem

Conference activities in Region 8 The first 30 years (1963–1993)

**Jacob Baal-Schem, IEEE Life Senior Member
Tel Aviv University, Israel**

Abstract – Holding Technical Conferences is one of the major activities of IEEE Operating Units. Soon after its founding in 1963, Region 8 Committee decided to initiate a Regional IEEE Conference, in cooperation with EUREL, the Convention of National Associations of Electrical Engineers of Europe. As the demand grew, additional series of Conferences were established. This paper looks at the development of Regional Conference activities in Region 8 (Europe, The Middle East and Africa) during the years 1963–1993.

⁹As opposed to the US situation, where IEEE is the national electrical engineering association, Region 8 comprised many European nations, using many languages, where since long time national engineering associations with different management structures were established. Often these associations were suspicious of getting competition from the newly established and English speaking IEEE. Note from Hugo Wyss, March 2012.

Introduction

IEEE is known worldwide for the level of its technical conferences, and therefore, soon after the founding of Region 8 in 1963, there was a demand for holding technical conferences in Europe. This required approval of, and cooperation with the National Societies of Engineers, who had to form a joint association for this purpose.

EUREL was founded in 1972 as a counterpart to the European part of the IEEE's Region 8, which actually includes Africa and the Middle East. The EUREL Secretariat rotated among the EUREL member organizations every three years. Despite the name, a few of the member societies also admitted other than electrical engineers, and some also have corporations as members.

As years passed, and the number of Sections all over the large area of Region 8 grew, it was felt that additional series of Conferences are required, mainly based on areas and their different emphasizes (solar energy, technology transfer, etc.). A trial to hold theme oriented Conferences (e.g. Computers) was discontinued after a few issues.

EUROCON

EUREL and IEEE Region 8 cooperated on projects such as the EUROCON meetings – first once every three years, and from 1980 – every second year. They agreed that EUROCON will be conducted by the IEEE, with local national engineering societies invited to cosponsor the conference, to be held in English. The first EUROCON was held in 1971 in Lausanne, Switzerland and the next ones were held in different countries in Europe – see the attached table. The partnership between IEEE Region 8 and EUREL was discontinued in 1988 and the parties agreed that Region 8 can continue to use the EUROCON brand for its meetings. EUROCON Conferences are actually held every second year as IEEE Region 8 events.

MELECON

In 1979, as Israel was not accepted as a venue for EUROCON, the Chairman of the Israel Section, Dr. Jacob Baal-Schem, proposed to the Region 8 Committee the holding of a biennial Mediterranean Electrotechnical Conference, to be called MELECON. The proposal was accepted and Tel Aviv was chosen as venue for the first MELECON, to be held on May 1981, with 50 % partnership of the Region and 25 % partnership by each – the Section and the National Society. MELECON '81 was a big success, with over 1200 participants and a surplus that enabled Region 8 to set-up a Conference reserve fund – which provided advance money to future Regional Conferences, in which the Region was a financial co-sponsor. It is continuously followed every second year by another conference in Mediterranean Sections, as shown in the table.

AFRICON

At the end of the '80s, it was felt that there is a need for holding Technical Conferences in Africa and Region 8 initiated AFRICON – African Electrical Technology Conference. The first Conference was held on 7–9 December 1983 at the Jomo Kenyatta Conference Center, Nairobi, Kenya. This Conference was followed by a series of Conferences held in different parts of the African continent.

CompEuro

A joint Region 8 - Computer Society Conference – COMPEURO – was initiated in the 1980's and the first CompEuro was held in Hamburg, Germany in May 1987. A joint steering committee with representatives of Region 8 and IEEE Computer society was formed, and a MOU and Procedures document were signed by the parties. The series of joint conferences continued yearly, until 1993, as shown in the table.

Conference coordination

All Regional Conferences were discussed in the Regional Conference Committee and brought to approval by the Regional Committee. They received advance funding from the Conference reserve, with Regional partnership in the Conference income. The Conference Committee received guidance by the Regional Conference Coordinator and all events were conducted according to IEEE Procedures and Region 8 Bylaws.

In November 1991, the Region 8 Conference Committee published a “Guide to Conference activities in Region 8,” which includes Policy and Procedures including Sponsoring Conferences (as approved by Region 8 Committee in October 1984) as well as Aim, Procedures and Management of the Conference reserve fund (as approved by Region 8 Committee in 1983).

In addition to Regional Conferences, IEEE Region 8 hosted and co-sponsored – mainly technically – many IEEE Societies’ Conferences, and many members from Region 8 participated as Committee members, authors and attendees in IEEE Technical Conferences.

Conclusions

During these first 30 years of IEEE Region 8 activities, Technical Conferences were one of the major activities and many of the Sections participated actively in the organization and holding of Conferences. This type of activities continues since then and provides venues for professional meetings of IEEE members in the Region, as well as for other professionals. EUROCON, MELECON and AFRICON Conferences continue to be successfully held and additional Conferences have been established.

Dr. Jacob Baal-Schem (BSc–1959; MSc–1966; DSc–1979; Technion – Israel); Member of IEEE History Committee, Region 8 Life Member and History activities coordinator; Member ComSoc History Committee. Senior Lecturer at Tel Aviv University. Was R8 Conference Coordinator from 1981 to 1993.

6.3 Conference activities in Region 8 – After the first 30 years – Baldomir Zajc

Conference activities in Region 8 After the first 30 years (i.e., after 1993)

**Baldomir Zajc, IEEE Life Senior Member
University of Ljubljana, Slovenia**

Abstract – This paper is dedicated to the development of Conference activity by the Region 8 Committee from the year 1993 onwards.

Introduction

By 1991 the series of EUROCONs was believed to be most important among conference events in Region 8 and as such EUROCON’91 was prepared to be held in Zurich, Switzerland. According to the well-going economy of that time there was a strong desire to attract more papers from industry in contrast to the usual conference content of papers from academia. It was planned to include topics such as reliability, productivity and so on, in order to support such expectations. But, for reasons not to be analysed here again, the conference had to be cancelled because of not having enough papers and experienced a very low number of registrations. After that nobody in the R8 Committee wanted to discuss future conferences of this type. Such an atmosphere was present when, in 1994, I became R8 Conference Coordinator.

By then, two other R8 conference series, MELECON and AFRICON, were running quite smoothly and successfully, every two years for the first and every three years for the second. Another R8 conference series, called CompEuro, ceased being organized after CompEuro’93 in Paris-Evry (I was present and considered it successful as it had always been before). I do not know anything about the reasons for the decision not to continue CompEuro.

Later, at the end of the nineties I began to very very slowly introduce in the R8 Conference Coordination Committee the idea of reestablishment of EUROCONs again. Very few people were supporting such an idea at that time.

EUROCONS

Despite the lack of support for re-starting EUROCON, the idea had been developing more and more. By the nineties the political system in Europe had dramatically changed. All those countries which had changed their political and economical system needed help from IEEE and this was a new broader opportunity for IEEE. There was a scarcity of conferences and meetings where professionals could gather and exchange ideas in those countries. Also all the various IEEE Services became of interest, and helpful to a much larger number of new members.

Therefore the decision to reestablish EUROCON in 2001 in Bratislava, Slovakia, a location centrally placed in these newly-involved countries, was more easily accepted.

There were also proposed some new guidelines for other less expensive conferences which could thereby make possible lower fees for participants. It was proposed to organize events on university campuses instead of in expensive hotels, getting space and equipment for free or at a low price and with a lot of people available for organizational tasks. It was advised also to join with other local events to create a better atmosphere and to attract a bigger number of participants. There are always also some accommodation facilities available in universities, at least for students. And beside the normal conference program the proposal was to organize and include sessions comprising educational programs from IEEE Services and in other ways to help newly-joining members.

These propositions were considered in all later R8 Conferences. After reestablishing EUROCON 2001 in Bratislava, EUROCONs followed every two years, held in Ljubljana 2003, Belgrade 2005, Warsaw 2007, Saint-Petersburg 2009 and Lisbon 2011.

For EUROCON 2003 in Ljubljana I created the title-motto “Computer as a Tool” for attracting the papers, and this title was broad enough to describe the intentions of this type of conference. This motto was used still for EUROCON 2011 in Lisbon.

MELECONS

MELECON conferences were running successfully all the time since the first one in 1981, moving from one Mediterranean country to another, slowly covering the whole area. The aims of these conferences were to select those topics which were important in that geographical area.

AFRICONs

Of course the needs in Africa are somewhat different and the AFRICON conferences are dedicated to these needs. The first three were organized as individual initiatives but from 1996, after Stellenbosch, all the subsequent conferences were organized with the help of the skills attained by the South Africa Section, which were developed together with the IEEE Region 8 Conference Committee. These skills were later shared with the AFRICON organizers in Botswana, Namibia and Zambia under the supervision of the South Africa Section

SIBIRCONS

Recently Region 8 also began conference activity in Siberia, with the scope to gather participants from that neighbourhood, and also from Region 10.

ENERGYCONs

At the end of 2010 an additional conference was organized in Manama, Bahrain, 18–22 December, called ENERGYCON. With 1000 participants and supporters, they had a lot to tell and discuss. The next conference with this title took place in Firenze, Italy. So after longer preparation maybe another series of R8 conferences has been started?

7 Student activities

7.1 The early years of IEEE Region 8 Student Activities – until 1984

This is a transcription of the history parts as they appeared in the SAC reports by Paul Jespers and André Vander Vorst, with a few minor corrections.

The Region 8 Committee has always placed great importance on student activities. At the Committee's Fifth Meeting, held in Geneva on April 26, 1965, the newly elected Director Mr. J. Lebel expressed his concern about subscription rates for students, the interests of graduate students, and how to encourage student membership without competition with the national societies.

There were four Student Branches at that time: the University of Roma, established in 1961 with Prof. Barzilai as counselor; the University of Padova, established in 1963 (Prof. Cariolaro), the E.T.S.I.T. Madrid, 1964 (Prof. Millán), and the University of Louvain, 1965 (Prof. Jespers).

At the Seventh Region 8 Committee Meeting, held in Rome on April 13, 1966. Director Lebel suggested establishing an inter-Branch competition for the best student papers, which would receive prizes, and participation in the international contest organized in New York by the IEEE. He also appointed Prof. P. Jespers as the first Student Activities Committee Chairman, and this Committee held its first meeting in Rome on April 15, 1966.

At the end of the year 1966, a Branch was established at Chalmers Institute of Technology, Goteborg (Prof. Wallmark), while at the meeting held in Leuven on September 17 of the same year, the Student Activities Committee approved the rules governing the Undergraduate Student Paper Contest.

The first Contest took place in Lausanne on September 7, 1967. Five papers were entered, and the winner went to New York to participate to the Institute Contest. Since this first edition, interest in this Contest has never decreased.

Due to a six-months leave of absence of Prof. P. Jespers, Prof. A. Vander Vorst acted as SAC Chairman in 1967–1968. In 1967, Branches were established at the Royal Institute of Technology, Stockholm (Prof. Enander) and at the University of Uppsala (Prof. Tove), while student membership increased at the University of Naples (Prof. Capuccini) although a Branch was never established.

Activities developed in 1967 led to the establishment of Branches at the Technical University of Helsinki (Prof. Tiuri), Lund Institute of Technology (Prof. Stigmark), in the United Kingdom and Republic of Ireland on a Section Student Branch (Prof. Ash) as well as in the Switzerland Section (Dr. Eggimann), and at the Institut Supérieur d'Electronique, Paris (Mr. Magne).

Several branches were established in 1969: at the Technical University of Twente (Mr. Poortvliet), the Ecole Supérieure d'Ingénieurs en Electrotechnique et Electronique, Paris (Mr. Roumegoux), the Ecole Supérieure d'Electricité, Paris (Prof. Hebenstreit), the Politecnico di Milano (Prof. Ferrari), and the University of Trieste (Prof. Zoldan), with an Associate Student Branch at the Istituto Radiotecnico A. Beltrami, Milano (Prof. Mosca).

The period 1965–1970 has been characterized by rather large exchange programs between Headquarters and Region 8: the winners of the Region 8 Contest were invited to participate in the Contest at the Institute level and to attend the IEEE Convention. Student Branch representatives were also invited to a meeting during the Convention.

In 1970, a new SAC Chairman was appointed: Prof. E.F. Bolinder. At that time, there were 18 Student Branches, which have already been mentioned, and counselors had been appointed in several other Universities and Institutes: Genova (Prof. Biorci), Zürich (Prof. Borgnis), Lyngby (Prof. Bruun), Eindhoven (Prof. Butterweck), Napoli (Prof. Cappucini), Barcelona (Prof. Companys), Bologna (Prof. Monaco), and Trondheim (Dr. Selseth).

New Branches were founded in 1970 at the Universities of Bologna (Prof. Monaco), Genova (Prof. Biorci), Liège (Prof. Danthine), Cairo (Dr. Kamal), Ljubljana (Prof. Wedam), and Lille (Prof. Vidal).

The 1971–series was formed of Technical University of Denmark, Lyngby, (Mr. Nilsson), Ain-Shams (Prof. Saad-El-Din Yousef), Politecnico di Torino (Dr. Pozzolo), while two Branches arise from the

University of Louvain, respectively in Leuven (Prof. Van Overstraeten) and Louvain-la-Neuve (Prof. Vander Vorst), and two others from the Switzerland Section Student Branch, respectively at E.T.H. Zürich (Prof. Borgnis) and at E.P.F. Lausanne (Prof. de Coulon).

In 1972, Prof. A. Vander Vorst became the new SAC Chairman. At that time, an activity was developing between Region 8 SAC Chairman and the Student Policy and Planning Committee, New York, Region 8 students went to the U.S. under this program and reported at the 10th SAC meeting, held in Louvain-la-Neuve, in November 1972.

Branches were established in 1973 at the Ecole Nationale Supérieure des Télécommunications, Paris (Mr. Hirschler), at Technion Haifa (Prof. Navot), and the University of Tel Aviv (Prof. Ur), while the Branch at Beltrami was dissolved. The next year came the Branches at the University of Linköping (Prof. Fjällbrant) and Alexandria (Dr. M. Ez-EI Arab), the E.N.S. d'Electrotechnique et de Génie Physique, Grenoble (Mr. Sabonnadière), I.S.E.N. Lille (Prof. Vandenberghe), and H.T.S. voor Radiotechniek en Elektronika Haarlem (Mr. Van der Werff).

After EUROCON 74 Amsterdam, April 1974, Prof. Bolinder was again appointed SAC Chairman until the end of the year. He was then followed by Prof. O. Memelink. A new Branch was established at the University of Oulu (Prof. Lappalainen), while several were dissolved in 1975: Lyngby, Ain-Shams, Alexandria, E.N.S. Electricité Paris, University of Lille, and Torino. Budget limitations due to inflation started and no general counselor meeting was held until 1980. The SAC Chairman organized local meetings in Venice, Stockholm and Louvain-la-Neuve in 1975.

Mr. J.G. Rémy took over as SAC Chairman in 1976 and organized local counselor meetings in Paris, London and Venice in 1977, while new Branches were established at the Universities of Athens (Prof. Protonotarios) and Tampere (Prof. Neuvo).

In 1978, Prof. A. Vander Vorst was appointed SAC Chairman again. A Branch was established at the University of Thessaloniki (Prof. Kriezis) in 1979 while the one at I.S.E.N. Lille was dissolved. A general Counselor meeting, the first since six years, was held in Stuttgart on the occasion of EUROCON 80. The 1980-series of new Branches was composed of the Technical University of Eindhoven (Dr. Vinck), the University of Florence (Prof. Cappellini) and Kuwait (Prof. El-Gabaly), the E.T.S.I.T. Barcelona (Prof. Delgado-Penin) while the Branch at Torino started again (Prof. Del Corso) and activities expanded at the University of Roma (Dr. Sorrentino).

In 1980 a Postgraduate Student Paper Contest was organized for the first time, within the framework of EUROCON.

The 1981 new Branches were established at the Technical University of Delft (Prof. Dewilde), and at the University of Negev, Beer-Sheva (Prof. Tabak), as well as in Denmark, as a Section Student Branch (Dr. Joersboe).

The Region 8 Committee approved in October 1982 the idea of a system of grants established in the Region to help Branches financially in organizing trips abroad, to encourage inter-Branch and international contacts.

In 1983, a new SAC chairman was appointed, D.C.J. Poortvliet. A Branch was established at the University of Munich in 1985, while the Region 8 Committee approved the establishment of a Student Activities Executive Committee.

In 1984, the IEEE centennial year, each Region selected a centennial Student, who was invited to the centennial celebrations in Boston. The Region 8 Centennial Student was Philippe Siraut from Louvain-la-Neuve. His alternate was Lex van Gijssel from Eindhoven. Those two students were appointed as the two student members of the first Student Activities Excom.

7.2 Student Activities Committee meetings – until 1984

1. Rome, Italy – 15 April 1966 (Jespers)
2. Leuven, Belgium – 17 September 1966 (Jespers)
3. London, UK – 23 May 1967 (Jespers)
4. Lausanne, Switzerland – 7 September 1967 (Vander Vorst)
5. Paris, France – 1 April 1968 (Jespers)
6. Tel Aviv, Israel – 24 October 1968 (Jespers)
7. Montreux, Switzerland – 23 May 1969 (Jespers)
8. Gothenburg, Sweden – 17 April 1970 (Bolinder)
9. Paris, France – 16 April 1971 (Bolinder)
10. Louvain-la-Neuve, Belgium – 17 November 1972 (Vander Vorst)
11. Amsterdam, Netherlands – 26 April 1974 (Vander Vorst)
12. Venice, Italy (18 April); Stockholm, Sweden (24 June); Louvain-la-Neuve, Belgium (26 September) – 1975 (Memelink)
13. Paris, France (31 January); London, UK (7 March); Venice, Italy (2 May) – 1977 (Rémy)
14. Stuttgart, Germany – 28 March 1980 (Vander Vorst)
15. Lyngby, Denmark – 18 June 1982 (Vander Vorst)
16. Brighton, UK – 25 September 1984 (Poortvliet)

7.3 Student Branch (and GOLD / Young Professional) Congresses

It is important to note that prior to the Student Branch (and GOLD) Congresses, (annual) Transnational Student Meetings were organized where representatives of Region 8 Student Branches met. For instance, in the Netherlands (1985), Finland (1986), Switzerland (1987), Belgium (1988: over 40 students from Benelux, Denmark, UK, Finland, Germany, Greece, Poland, Portugal, Spain, Switzerland and the USA), Portugal (1989), the Netherlands (1991: 76 students from 12 countries) and Turkiye (1992: over 45 students from 16 countries). Especially at the early student meetings, the oral finals of the Student Paper Contest were held at these meetings.

After the change of 'IEEE GOLD' into 'IEEE Young Professionals' in 2013, the name of the congress became 'Student and Young Professional Congress.'

- 1998** Istanbul, Turkiye, 10–13 August 1998
- 2000** Eindhoven, Netherlands, 14–19 May 2000
- 2002** Cairo, Egypt, 1–5 May 2002
- 2004** Passau, Germany, 4–7 September 2004
- 2006** Paris, France, 30 August – 3 September 2006
- 2008** London, United Kingdom, 28–31 August 2008
- 2010** Leuven, Belgium, 4–8 August 2010
- 2012** Madrid, Spain, 25–29 July 2012
- 2014** Kraków, Poland, 6–10 August 2014
- 2016** Regensburg, Germany, 17–21 August 2016
- 2018** Porto, Portugal, 22–25 July 2018
- 2020** Gothenburg, Sweden, 5–9 August 2020 – cancelled because of Covid-19; replaced by Virtual Student & Young Professional Congress, 14–26 September 2020; see <https://www.r8syp.com/virtual-syp>
- 2022** Gammarth, Tunis, Tunisia, 3–7 August 2022

7.4 Cross-Sectional Student Branch (and GOLD / Young Professional) Congresses

M = Middle East, I = Iberian, C = Central European, H = Hellenic, W = West European, N = Nordic G = GCC (Gulf Cooperation Council), A = Africa, E/N = East/North Africa

| year | M | I | C | H | W | N | G | A | E/NA | | |
|------|---|---|---|---|---|---|---|---|------|------------------|---|
| 2009 | 1 | | | | | | | | | Middle East | Amman, Jordan, 11–14 May 2009 |
| 2009 | | 1 | | | | | | | | Iberian | Lisbon, Portugal, 9–11 October 2009 |
| 2011 | | 2 | | | | | | | | Iberian | Madrid, Spain, 11–13 March 2011 |
| 2011 | 2 | | | | | | | | | Middle East | Doha, Qatar, 15–18 March 2011 |
| 2011 | | | 1 | | | | | | | Central European | Linz, Austria, 13–15 May 2011 |
| 2012 | | | | 1 | | | | | | Hellenic | Patras, Greece, 14–16 December 2012 |
| 2013 | | 3 | | | | | | | | Iberian | Porto, Portugal, 15–17 March 2013 |
| 2013 | | | 2 | | | | | | | Central European | Opole, Poland, 13–15 May 2013 |
| 2013 | 3 | | | | | | | | | Middle East | Beirut, Lebanon, 28 May – 1 June 2013 |
| 2013 | | | | 2 | | | | | | Hellenic | Nicosia, Cyprus, 1–3 November 2013 |
| 2015 | | 4 | | | | | | | | Iberian | Alcalá de Henares / Madrid, Spain, 23–25 April 2015 |
| 2015 | | | 3 | | | | | | | Central European | Zagreb, Croatia, 8–10 May 2015 |
| 2015 | | | | | 1 | | | | | West European | Eindhoven, Netherlands, 20–24 May 2015 |
| 2015 | 4 | | | | | | | | | Middle East | Amman, Jordan, 4–7 August 2015 |
| 2015 | | | | 3 | | | | | | Hellenic | Thessaloniki, Greece, 30 October – 1 November 2015 |
| 2015 | | | | | | 1 | | | | Nordic | Stockholm, Sweden, 6–8 November 2015 |
| 2017 | | | | | | | 1 | | | GCC | Manama, Bahrain, 7–8 May 2017 |
| 2017 | | | 4 | | | | | | | Central European | Lviv, Ukraine, 30 June – 2 July 2017 |
| 2017 | 5 | | | | | | | | | Middle East | Gammarth, Tunisia, 1–4 August 2017 |
| 2017 | | | | | | | | 1 | | Africa | Abuja, Nigeria, 8–10 September 2017 |
| 2017 | | | | | | 2 | | | | Nordic | Vilnius, Lithuania, 20–22 October 2017 |
| 2017 | | | | 4 | | | | | | Hellenic | Athens, Greece, 3–5 November 2017 |
| 2017 | | | | | 2 | | | | | West European | Valencia, Spain, 16–18 November 2017 |
| 2017 | | | | | | | | 1 | | East Africa | Kampala, Uganda, 23–24 November 2017 |
| 2019 | | | | | | | 2 | | | GCC | Kuwait, Kuwait, 19–20 April 2019 |
| 2019 | | | 5 | | | | | | | Central European | Novi Sad, Serbia, 2–4 July 2019 |
| 2019 | | | | | 3 | | | | | West European | Glasgow, UK, 19–21 September 2019 |
| 2019 | | | | | | 3 | | | | Nordic | Stockholm, Sweden / Helsinki, Finland, 25–27 October 2019 |
| 2019 | | | | 5 | | | | | | Hellenic | Xanthi, Greece, 8–10 November 2019 |
| 2019 | | | | | | | | 2 | | Africa | Nairobi, Kenya, 19–20 December 2019 |
| 2021 | | | | | | | | 3 | | Africa | hybrid, ???, Ghana, 18–20 November 2021 |
| 2021 | | | | 6 | | | | | | Hellenic | virtual, 20–21 November 2021 |
| 2021 | | | 6 | | | | | | | Central European | virtual, 26–27 November 2021 |
| 2021 | 6 | | | | | | | | | Middle East | virtual, 12–16 December 2021 |
| 2021 | | | | | | | | 1 | | North Africa | hybrid, ???, Tunisia, 19–22 December 2021 |
| 2023 | | | | | | | | 4 | | Africa | Abuja, Nigeria, 27–29 July 2023 |
| 2023 | | | | | | | | 2 | | North Africa | Cairo, Egypt, 25–27 August 2023 |
| 2023 | | | | | 4 | | | | | West European | Lausanne, Switzerland, 15–17 September 2023 |
| 2023 | 7 | | | | | | | | | Middle East | Aqaba, Jordan, 28–30 September 2023 |
| 2023 | | | 7 | | | | | | | Central European | Krakow, Poland, October 2023 |

7.5 Student Paper Contest Finals

The IEEE Region 8 Student Paper Contest was an initiative of the second Region 8 Director, Jean Lebel.

1967 Lausanne, Switzerland, 7 September 1967, in conjunction with the Region 8 Committee meeting and the 4th Region 8 Student Activities Committee meeting

1. Ingemar Lundström (Chalmers University of Technology, Gothenburg, Sweden) Analysis of current spreading in firing thyristors

2. Michel Declercq (Catholic University of Louvain, Belgium) Synthèse d'un convertisseur d'impédance négative
3. Giorgio Leskovic (Padova University, Italy) Determination of cardiopulmonary circulation parameters by analog computer simulation of cardiac dilution curves

1968 Paris, France, 1 April 1968, in conjunction with the Region 8 Committee meeting and the 5th Region 8 Student Activities Committee meeting

1. Lars Odman (Chalmers University of Technology, Gothenburg, Sweden) Analog computation of surface field at p-n junctions
2. Alessandro Birolini (Swiss Federal Institute of Technology, Zurich, Switzerland) Simulation d'une installation hydroélectrique en marche isolée sur charge ohmique symétrique
3. Hannu Marsalo (Technical University of Helsinki, Finland) Device for recording of diaphragm movements during breathing

1969 Montreux, Switzerland, 22 May 1969, in conjunction with the Region 8 Committee meeting and the 7th Region 8 Student Activities Committee meeting

1. Claude André Vouga (Swiss Federal Institute of Technology, Zurich, Switzerland) Les conditions de stabilité des systèmes échantillonnés obtenues algébriquement à l'aide d'un ordinateur
2. Lennart Almstrom, R. Bertilsson, R. Bergstrand (Chalmers University of Technology, Gothenburg, Sweden) Theory and construction of a binary to ternary coder
3. Henrik van Brussel, R. Thore (Catholic University of Louvain, Belgium) Stability and design criteria for action linear two-ports with generalised scattering parameters

1970 Gothenburg, Sweden, 17 April 1970, in conjunction with the Region 8 Committee meeting and the 8th Region 8 Student Activities Committee meeting

1. Bernard P. Zisermann, Michel Codou (Ecole Supérieure d'Ingénieurs d'Electrotechnique et d'Electronique, Paris, France) Etude théorique et technologique d'ensembles complets de fonctions ternaires
2. *Ex aequo*: D. Anderson (Chalmers University of Technology, Gothenburg, Sweden) Nonlinear analysis by means of a variational principle
2. *Ex aequo*: R. Meylan (Swiss Federal Institute of Technology, Zurich, Switzerland) Générateur de bruit pseudo-aléatoire à densité de probabilité sélectionnable

1971 Paris, France, 16 April 1970, in conjunction with the Region 8 Committee meeting and the 9th Region 8 Student Activities Committee meeting

1. Frank J. Furrer (Swiss Federal Institute of Technology, Zurich, Switzerland) Coupled transmission lines with non-linear terminations
2. Etienne Loute, M.C. Decréton (University of Louvain, Heverlee, Belgium) Optimisation d'isolateurs à résonance
3. Pertti E.M. Poulakka (Helsinki University of Technology, Finland) A novel design method for three-port circulators

1972 Louvain-la-Neuve, Belgium, 17 November 1972, in conjunction with the Region 8 Committee meeting and the 10th Region 8 Student Activities Committee meeting

1. E. Schutz (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Etude d'un gyrateur intégrable déséquilibré
2. W.A. Vervoort (Technological University Twente, Enschede, Netherlands) AAS — An Addressing System
3. B. Marthinsson, E. Max (Chalmers University of Technology, Gothenburg, Sweden) Automatic check and calibration of digital voltmeters

1973 No contest

1974 Amsterdam, Netherlands, 26 April 1974, as part of EUROCON 1974, the European Conference on Electrotechnics (22–26 April 1974), and in conjunction with the Region 8 Committee meeting and the 11th Region 8 Student Activities Committee meeting

1. P. Gravez, M. Minck (Ecole Supérieure d'Ingénieurs en Electrotechnique et Electronique, Paris, France) Joncteur de conférence par voies téléphoniques
2. A. Sewerinsson (Chalmers University of Technology, Gothenburg, Sweden) An active group delay equalizer for the intermediate frequency range
3. E. Jonckeere (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) On the stochastic optimal control of a discrete-time linear system with a finite set of allowable actions

1975 Venice, Italy, 19 April 1975, in conjunction with the Region 8 Committee meeting and the 12th Region 8 Student Activities Committee meeting

1. Norbert Bayoux, Jean François Scheffers (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Réalisation et mesure de transistors à substrat inhomogène
2. Willi Vollenweider, Piers Kasser (Swiss Federal Institute of Technology, Zurich, Switzerland)
3. Alexandra Izhkar (Technion, Haifa, Israel) On Horowitz's optimization problem in active RC network synthesis and the solution of an associated nonlinear programming problem

1976 London, UK, 26 March 1976, in conjunction with the Region 8 Committee meeting

1. B.F. Pfister, W.Ch. Oehen (Swiss Federal Institute of Technology, Zurich, Switzerland) A microprocessor-implemented recursive adaptive filter for on-line data equalization
2. P. Couvreur (Université Catholique de Louvain, Louvain-la-Neuve, Belgium)
3. C. Rossier (Ecole Polytechnique de Lausanne, Switzerland)

1977 Venice, Italy, 6 May 1977, as part of EUROCON 1977, the European Conference on Electrotechnics (3–6 May 1977), and in conjunction with the Region 8 Committee meeting and the 13th Region 8 Student Activities Committee meeting

1. Giuseppe A. Marino (Università di Genova, Italy) A computer-aided ultrasonic B-scan system for ophthalmology
2. T. Laurent (Université Catholique de Louvain, Louvain-la-Neuve, Belgium)
3. J. Starr (Katholieke Universiteit Leuven, Belgium)

1978 Eindhoven, Netherlands, 21 April 1978, in conjunction with the Region 8 Committee meeting

1. Xavier Sinéchal (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Analyse spectrale du comportement de l'opérateur humain soumis à des conditions de stress
2. Paul Schöbi (Swiss Federal Institute of Technology, Zurich, Switzerland) Synchronization of binary pseudo noise sequences
3. Patrick de Ryck (Katholieke Universiteit Leuven, Belgium) Realisation of a testing system for charge coupled devices with matrix structure

1979 Zurich, Switzerland, 27 April 1979, in conjunction with the Region 8 Committee meeting

1. W. Blaser, P.L. Heinzmann (Swiss Federal Institute of Technology, Zurich, Switzerland) New cryptographic device with high security using public key distribution
2. M. Nazarathy (Technion, Haifa, Israel) Optical spatial spectrum analysis using a simplified approach
3. S. Abbeloos, M. de Grève (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Etude et réalisation d'un modem à microprocesseur à 2400 bits/sec

1980 Stuttgart, Germany, 28 March 1980, as part of EUROCON 1980, the European Conference on Electrotechnics (24–28 March 1980), and in conjunction with the 14th Region 8 Student Activities Committee meeting

1. Jesús A. del Alamo (Universidad Politécnica de Madrid, Spain) Photovoltaic solar energy conversion by means of bifacial DSSF solar cells
2. *Ex aequo*: S. Jespers, Ph. Tibaut (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Study and realization of a high speed specialized processor designed for a network analyser
2. *Ex aequo*: Håkan Persson (Chalmers University of Technology, Gothenburg, Sweden) Blissograph – A printer for Bliss symbols

Postgraduate Paper Contest winners

1. *Ex aequo*: Arne Alping, Ulf Aiff (Chalmers University of Technology, Gothenburg, Sweden) Development of an optical spectrum analyzer using a lateral photodiode
1. *Ex aequo*: D. Maravall Gomez-Allende (Universidad Politécnica de Madrid, Spain) New solutions in adaptive signal detection
2. S.O. Ishrak (King's College, London, UK) A review of optically switched transducers for acoustic imaging

1981 Tel Aviv, Israel, 27 May 1981, as part of MELECON 1981, the (1st) Mediterranean Electrotechnical Conference (24–28 May 1981)

1. Zeev Shpiro, Rony Weissman (Technion, Haifa, Israel), Word recognition system
2. Frans J.J. Gielkens (Eindhoven University of Technology, Netherlands) The influence of the wind direction on rain-induced cross polarization
3. Jacques Godet (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Optimal control of the primary coolant temperature in a nuclear power plant

1982 Lyngby, Denmark, 18 June 1982, as part of EUROCON 1982, the European Conference on Electrotechnics (14–18 June 1982), and in conjunction with the 15th Region 8 Student Activities Committee meeting

1. W.J. Geldmacher, R.E. Schoepflin (Swiss Federal Institute of Technology, Zurich, Switzerland) Cross-compiler for pocket calculator
2. *Ex aequo*: Maria-Gabriella Di Benedetto (Università degli Studi di Roma, Italy) Voiced-unvoiced-silence classification of sounds in the speech signal
2. *Ex aequo*: Per Andersson (Chalmers University of technology, Gothenburg, Sweden) Absorption coefficients at CO₂-laser wavelengths for toluene, m-xylene, o-xylene, and p-xylene

Postgraduate Paper Contest winner

Torben Rottbøl Andersen, Søren Beyer Nielsen (Technical University of Denmark, Lyngby, Denmark) An efficient single output fuzzy control algorithm for adaptive applications

1983 Athens, Greece, 26 May 1983, as part of MELECON 1983, the 2nd Mediterranean Electrotechnical Conference (24–26 May 1983), and in conjunction with the Region 8 Committee meeting

1. P.J. Miller (Hull University, UK) A dynamic Boolean algebra
2. Carlos Muñoz, Alberto Sanz (Universidad Politécnica de Madrid, Spain) Hierarchical image transmission
3. Marc Juckler, Stéphane de Mahieu (Université catholique de Louvain, Louvain-la-Neuve, Belgium) Design of a totally self-checking arithmetic and logic unit

1984 Brighton, UK, 25 September 1984, as part of EUROCON 1984, the European Conference on Electrotechnics (26–28 September 1984), and in conjunction with the 16th Region 8 Student Activities Committee meeting

1. Etienne Denoël, Jean Philippe Solvay (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Speech linear prediction using a least absolute value criterion

2. Martin Frick, Conradin V. Gugleberg (Swiss Federal Institute of Technology, Zurich, Switzerland) Computer aided design for the manufacture of printed circuit boards
3. Aarne Rantala (Helsinki University of Technology, Finland) Digital image processing applied to traffic surveillance

1985 Madrid, Spain, 10 October 1985, as part of MELECON 1985, the 3rd Mediterranean Electrotechnical Conference (8–10 October 1985), and in conjunction with the Region 8 Committee meeting

1. *Ex aequo*: Jean-Pierre Ksenicz and Oliver Nys (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) ROM testability and autocorrelation
1. *Ex aequo*: Peter Andrekson (Chalmers University of Technology, Gothenburg, Sweden) Semiconductor laser stabilization using an external cavity and electronic control systems
3. *Ex aequo*: Maurice H.A. Paquay (Eindhoven University of Technology, Netherlands) Analysis and comparison of the calibration methods for a six-port reflectometer
3. *Ex aequo*: Gabriel Eckert and Max Felser (Swiss Federal Institute of Technology, Zurich, Switzerland) On line observation of Modula-2 programs

1986 Paris, France, 22 April 1986, as part of EUROCON 1986, the European Conference on Electrotechnics (21–23 April 1986), and in conjunction with the Region 8 Committee meeting

1. (ETH Zurich, Switzerland) On linear complexity and correlation immunity of the summation cypher
2. (Greece) Approximate and plausible reasoning using attribute grammars
3. (Université Catholique de Louvain, Louvain-la-Neuve, Belgium)

1987 Rome, Italy, as part of MELECON 1987, the 4th Mediterranean Electrotechnical Conference (24–26 March 1987), and in conjunction with the Region 8 Committee meeting

- 1.
- 2.
- 3.

1988 Brussels, Belgium, as part of CompEuro'88, the Second Conference on Computer Technology, Systems, and Applications (12–15 April 1988). The contest took place during the 25th anniversary students meeting, which was held on the occasion of the Region's 25th anniversary. In close cooperation with the Benelux IEEE Student Branches a four days program was organized. Over 40 students from Benelux, Denmark, England, Finland, Germany, Greece, Poland, Portugal, Spain, Switzerland and the U.S.A. attended the program. A workshop on development skills was followed by the student paper contest, with all 10 contestants invited on this occasion.

1. Olivier Poncin, Béatrice van Caillie (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Filtering and standards conversion in digital television
2. Andreas Lusser (EFPL, Lausanne, Switzerland) Ordering schemes for local loadflow solutions
3. Réjane Forré (Swiss Federal Institute of Technology, Zurich, Switzerland) Analysis of a keystream generator producing binary sequences with controllable complexity and ideal r-tuple distribution

1989 Lisbon, Portugal, 12 April 1989, as part of MELECON 1989, the 5th Mediterranean Electrotechnical Conference (11–13 April 1989)

1. P.M. Domingos, P.N. Diniz, R.P. Casteleiro (Instituto Superior Técnico, Lisbon, Portugal) GEAR – A 3D computer animation system for CAD and simulation
2. (Belgium)
3. (Belgium)

1990 Rome, Italy, 19 April 1990, as part of GAAS '90, the Gallium Arsenide Applications Symposium (19-20 April 1990)

1. Heikki Valmu (Helsinki University of Technology, Espoo, Finland) A cooled millimeter-wave radiometer for the ground-based detection of atmospheric ozone
2. René J. van der Vleuten (Eindhoven University of Technology, Netherlands) Controlled ALOHA for two-way data communication in a cable television network
- 3.

1991 Ljubljana, Yugoslavia, 23 May 1991, as part of MELECON 1991, the 6th Mediterranean Electrotechnical Conference (22–24 May 1991)

1. Dejan Križaj (University of Ljubljana, Yugoslavia) Fast reverse biased semiconductor device model nonlinear multigrid method
2. Andreja Umek (Jožef Stefan Institute, Ljubljana, Yugoslavia) Modelling, computation and evaluation of human arm workspace
3. Juhana Jaatinen (Helsinki University of Technology, Espoo, Finland) Optimizing assembler code generator for Digital Signal Processor

1992 The Hague, Netherlands, 6 May 1992, as part of CompEuro'92, the International Conference on Computer Systems and Software Engineering (4–8 May 1992)

1. Vieri Vanghi (University of Florence, Italy) Analysis of an all-digital demodulator for Trellis-coded 8-PSK modulation
2. Alain Baudhuin, Marc Fossion (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Development of double-sided planar microwave circuits and application to mixer
3. *Ex aequo*: Pascale Francis, Frédéric Vermaut (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Conversion from interlaced to progressive formats by means of motion compensation based techniques
3. *Ex aequo*: Emmanuel D. Frimout (Delft University of Technology, Netherlands)

1993 Paris-Evry, France, 26 May 1993, as part of CompEuro'93, the International Conference on Computers in Design, Manufacturing, and Production (24–27 May 1993)

1. André J.W. van der Kouwe (University of Pretoria, South Africa) EEG-based interface for the severely handicapped
2. Aleš Časar, Robert Meolic (University of Maribor, Slovenia) Representation of Boolean functions with ROBDDs
3. Guido Van den Berghe (Katholieke Universiteit Leuven, Belgium) Piano key action models for electric pianos

1994 Antalya, Turkiye, 13 April 1994, as part of MELECON 1994, the 7th Mediterranean Electrotechnical Conference (12–14 April 1994)

1. Alexandre Hoffmann (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Iterative performance enhancement in the control of a flexible arm / Iterative refinement of a GPC controller
2. A.J.C. (René) van Workum (Eindhoven University of Technology, Netherlands) A model of the non-idealities in a DPSK modulation system with direct detection
3. Mehmet Alper Kutay (Bilkent University, Ankara, Turkiye) An adaptive speckle suppression filter for medical ultrasonic imaging

1995 Limassol, Cyprus, 27 June 1995, as part of DSP'95, the International Conference on Digital Signal Processing (26–28 June 1995)

1. Thierry Delmot, Henri de la Vallée Poussin (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Analog design and realization of a Kohonen map using SOI technology

2. Denis Đonlagić (University of Maribor, Slovenia) The use of acoustic resonance in measuring the level of fluids
3. Olivier Bruyndonckx (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Non linear perceptual post-processing of noisy digital pictures

1996 Bari, Italy, 15 May 1996, as part of MELECON 1996, the 8th Mediterranean Electrotechnical Conference (13–16 May 1996)

1. Magne Setnes (Delft University of Technology, Netherlands) Similarity driven fuzzy rule-base simplification
2. Jyri Huopaniemi (Helsinki University of Technology, Finland) Design and implementation of a binaural real-time room simulation system
3. Benoît Codrons, Bruno Ceysens (Université Catholique de Louvain, Louvain-la-Neuve, Belgium) Iterative identificationless control design

1997 Munich, Germany, 23 April 1997, as part of ICASSP-97, the 1997 IEEE International Conference on Acoustics, Speech, and Signal Processing (21–24 April 1997)

1. Matthias A. Senn (Technical University of Munich, Germany) Reconvergence analysis for power estimation at logic level
2. Johan Driesen (Katholieke Universiteit Leuven, Belgium) Aspects of electrical energy measurement in the presence of harmonics
3. Bernhard G. Wimmer (Technical University of Munich, Germany) Robust error protection scheme for mobile applications

1998 Tel Aviv, Israel, 19 May 1998, as part of MELECON 1998, the 9th Mediterranean Electrotechnical Conference (18–20 May 1998)

1. Peter Bienstman (Ghent University, Belgium) Analysis and characterization of microcavity-LEDs for optical interconnect applications
2. Martijn van Beurden (Eindhoven University of Technology, Netherlands) Analysis of infinite phased arrays of printed antennas
3. Christian Wolters (Bochum University, Germany) Fault detection using higher-order frequency response functions

1999 Bled, Slovenia, 13 July 1999, as part of ISIE'99, the International Symposium on Industrial Electronics (12–16 July 1999)

1. Vili Podgorelec (University of Maribor, Slovenia) Self-adapting evolutionary decision support model
2. Dimitri Vandeville (Ghent University, Belgium) Non linear resampling for edge-preserving moiré suppression
3. Katrin Schroeder (Bochum University, Germany) Synthetic aperture-based reconstruction of intravascular ultrasound images in the time domain and frequency domain

2000 Limassol, Cyprus, 30 May 2000, as part of MELECON 2000, the 10th Mediterranean Electrotechnical Conference (29–31 May 2000)

1. Aleš Bardorfer (University of Ljubljana, Slovenia) Connecting haptic interface with a robot
2. Allert van Zelst (Eindhoven University of Technology, Netherlands) Extending the capacity of wireless LANs using space division multiplexing combined with OFDM
3. Christian Gunselmann (Bochum University, Germany) A contribution to the modeling of short channel MOSFETs for HF circuit simulations

2001 Bratislava, Slovakia, 6 July 2001, as part of EUROCON 2001, the International Conference on Trends in Communications (5–7 July 2001)

1. Johann Groszschaedl (Graz University of Technology, Austria) Area-efficient VLSI implementation of arithmetic operations in the binary finite field $GF(2^m)$
2. Arjan Meijerink (University of Twente, Enschede, Netherlands) Performance improvement of a generalized coherence multiplexing system
3. Matjaz Divjak, Aleš Holobar, Iztok Prelog (University of Maribor, Slovenia) VIDERO – Virtual delivery room

2002 Cairo, Egypt, 8 May 2002, as part of MELECON 2002, the 11th Mediterranean Electrotechnical Conference (7–9 May 2002)

1. Hans B. Roelofs, Jeroen A.J. Thijs (University of Twente, Enschede, Netherlands) Performance and cellular capacity of M-ary PSK in co-channel interference
2. Matej Artac (University of Ljubljana, Slovenia) Mobile robot localisation with incremental PCA
3. Saurabh Sinha (University of Pretoria, South Africa) Design of an integrated CMOS PLL frequency synthesizer

2003 Ljubljana, Slovenia, 23 September 2003, as part of EUROCON 2003, the International Conference on “Computer as a Tool” (22–24 September 2003)

1. Ulrich Stein, Marwan Younis (Universität Karlsruhe, Germany) Suppression of range ambiguities in synthetic aperture radar systems
2. Els Kok (Universiteit Twente, Enschede, Netherlands) Completely multimode arrayed waveguide grating-based wavelength demultiplexer
3. Noha A. El-Yamany (Alexandria University, Egypt) A new fuzzy gradient-adaptive lossy predictive coding system for still image compression

2004 Dubrovnik, Croatia, 12 May 2004, as part of MELECON 2004, the 12th Mediterranean Electrotechnical Conference (12–15 May 2004)

1. Antonin Descampe, François Devaux (Catholic University of Louvain, Louvain-la-Neuve, Belgium) A flexible line-based JPEG2000 decoder for digital cinema
2. Biswa Sengupta (University of York, UK) Optimisation of timing properties in a platform independent manner
3. Ahmed Abdelrahman Muhammad, George Isaac Aziz (Ain Shams University, Cairo, Egypt) 2D single mode channel waveguide and MMI beam splitter fabrication and characterization

2005 Belgrade, Serbia, 23 November 2005, as part of EUROCON 2005, the International Conference on “Computer as a tool” (21–24 November 2005)

1. Hansjörg Oliver Prinz (University of Karlsruhe, Germany) Design and development of a broadband real-time 100-175 GHz frequency measurement system for gyrotron diagnostics
2. Elke De Mulder, Pieter Buysschaert (Katholieke Universiteit Leuven, Belgium) Electromagnetic analysis attack on a FPGA implementation of an elliptic curve cryptosystem
3. Ioannis Yiakoumis, Markos Papadonikolakis, Haralambos Michail (University of Patras, Greece) Efficient small-sized implementation of the keyed-hash message authentication code

2006 Benalmádena (Málaga), Spain, 16 May 2006, as part of MELECON 2006, the 13th IEEE Mediterranean Electrotechnical Conference (16–19 May 2006)

1. Daniel Vikenmark (Royal Institute of Technology, Stockholm, Sweden) Reactive obstacle avoidance for mobile robots that operate in confined 3D workspaces
2. *Ex aequo*: Jurij Rakun (University of Maribor, Slovenia) The computer-aided detection of inferior printing quality and errors

2. *Ex aequo*: Dimitrios Schinianakis (University of Patras, Greece) A new approach to elliptic curve cryptography: an RNS architecture

2007 Warsaw, Poland, 11 September 2007, as part of IEEE Region 8 EUROCON 2007, the International Conference on “Computer as a Tool” (9–12 September 2007)

1. Wilm Decré (Katholieke Universiteit Leuven, Belgium) Application of a generic constraint-based programming approach to an industrially relevant robot task with geometric uncertainties
2. Aleš Zamuda (University of Maribor, Slovenia) Modelling, simulation, and visualization of forest ecosystems
3. Jan Verwecken (Katholieke Universiteit Leuven, Belgium) Design of inverse controller with cross-coupling suppression for UPFC series converter

2008 Ajaccio, Corsica, France, 6 May 2008, as part of MELECON 2008, the 14th IEEE Mediterranean Electrotechnical Conference (5–7 May 2008)

1. Geert Hellings (Katholieke Universiteit Leuven, Belgium) AlGaN Schottky diodes for detector applications in the UV wavelength range
2. William Vandenberghe (Katholieke Universiteit Leuven, Belgium) Analytical model for a tunnel field-effect transistor
3. Herman Myburgh (University of Pretoria, South Africa) Near-optimal low complexity MLSE equalization

2009 Saint-Petersburg, Russia, 19 May 2009, as part of EUROCON 2009 (18–23 May 2009)

1. Ralph Hermans (Eindhoven University of Technology, Netherlands) Low-complexity model predictive control of electromagnetic actuators
2. Bernhard Geiger (Technical University of Graz, Austria) Ranging in the IEEE 802.15.4a standard using energy detectors
3. Jef Beerten (Katholieke Universiteit Leuven, Belgium) Comparison of three-level torque hysteresis controllers for Direct Torque Control

2010 Valletta, Malta, 26 April 2010, as part of MELECON 2010, the 15th IEEE Mediterranean Electrotechnical Conference (25–28 April 2010)

1. Maxime Taquet (Catholic University of Louvain, Louvain-la-Neuve, Belgium) Feature-based error processing for robust surface registration in computer assisted orthopedic surgery
2. *Ex aequo*: Daniel Johannes Louw, P.R. Botha, B.T. Maharaj (University of Pretoria, South Africa) A low complexity Soft-Input Soft-Output MIMO detector which combines a sphere decoder with a Hopfield network
2. *Ex aequo*: Micha Linde (Karlsruhe University, Germany) A simple stochastic channel simulator for car-to-car communication at 24 GHz

2011 Lisbon, Portugal, 27 April 2011, as part of EUROCON 2011, the International Conference on “Computer as a Tool” (27–29 April 2011)

1. Shailesh Kulkarni, Patrick Reynaert, Cicero Vaucher, Domine Leenaerts, Maarten Tytgat (Katholieke Universiteit Leuven, Belgium) Design of a Ka-band upconverter for satellite communication
2. Jaymin Mankowitz, Andrew Paverd (University of the Witwatersrand, Johannesburg, South Africa) Mobile device-based cellular network coverage analysis using crowd sourcing
3. Ralph Tanbourgi (Karlsruhe University, Germany) Resolving the connectivity-throughput trade-off in random networks

2012 Yasmine Hammamet, Tunisia, 27 March 2012, as part of MELECON 2012, the 16th IEEE Mediterranean Electrotechnical Conference (25–28 March 2012)

1. Mike Domenik Rinderknecht (EFPL, Lausanne, Switzerland) Device for a novel hand and wrist rehabilitation strategy for stroke patients based on illusory movements induced by tendon vibration
2. Chen Zhu (Technical University of Munich, Germany) High accuracy multi-link synchronization in LTE: Applications in localization
3. Augustin Cosse (Catholic University of Louvain, Louvain-la-Neuve, Belgium) Diffeomorphic surface-based registration for MR-US fusion in prostate brachytherapy

2013 Zagreb, Croatia, 1 July 2013, as part of EUROCON 2013 (1–4 July 2013)

1. Maarten Van de Put (Katholieke Universiteit Leuven, Belgium) Band-to-band tunneling in III-V semiconductor heterostructures
2. Saeed Karimimehr (Isfahan University of Technology, Iran) A novel face recognition system inspired by computational neuroscience
3. Diego Marmsoler (Technical University of Munich, Germany) On the laws of failure: A theory of compensable programs

2014 Beirut, Lebanon, 14 April 2014, as part of MELECON 2014 (13-16 April 2014)

1. Slobodan Mitrović (Ecole polytechnique fédérale de Lausanne, Switzerland) Homometric sets in diameter-two and outerplanar graphs
2. Nick Janssen (Eindhoven University of Technology, Netherlands) Analysis and design of complex structures with an eigencurrent expansion method
3. Nicolas Van der Noot and Allan Barrea (Catholic University of Louvain, Louvain-la-Neuve, Belgium) Zero-moment point on a bipedal robot under bio-inspired walking control

2015 Salamanca, Spain, 9 September 2015, as part of EUROCON 2015 (8–11 September 2015)

1. Wouter Diels and Alexander Standaert (Katholieke Universiteit Leuven, Belgium) Design of 1 Mbit RRAM memory to replace eFlash
2. Ian Kavanagh (Dublin City University, Ireland) Developing a method of moments based indoor propagation model
3. Quentin Cappart and Adrien Thonet (Catholic University of Louvain, Louvain-la-Neuve, Belgium) The world migration network: Rankings, groups and gravity models

2016 Limassol, Cyprus, 18 April 2016, as part of MELECON 2016 (18–20 April 2016)

1. Stefan Wunsch (Karlsruhe Institute of Technology, Germany) Reducing the processing loss of windowed transforms using linear discriminant analysis
2. A.J. (Teun) van den Biggelaar (Eindhoven University of Technology, Netherlands) A fast, flexible and accurate algorithm for shaping the 3D radiation pattern of an AAS
3. Serban Mihalache and Florin-Silviu Dumitru (Politehnica University of Bucharest, Romania) Current-mode capacitance multiplier with reduced parasitic elements

2017 Ohrid, Republic of Macedonia, 7 July 2017, as part of EUROCON 2017 (6–8 July 2017)

1. Lucija Brezočnik (University of Maribor, Slovenia) Feature selection for classification using particle swarm optimization
2. Tim Thielemans (Katholieke Universiteit Leuven, Belgium) A capacitive gearbox DC/DC converter enabling skyscraper CMOS with dynamic voltage scaling
3. Elly De Pelecijn (Katholieke Universiteit Leuven, Belgium) High speed time-multiplexed continuous time sigma-delta converters

2018 Marrakesh, Morocco, 2 May 2018, as part of MELECON 2018 (2–7 May 2018)

1. Ahmed Abdelraouf Mohamed (Arab Academy for Science, Technology & Maritime Transport Cairo, Egypt) A multi-objective distributed generation allocation and sizing using swarm intelligence based algorithms
2. Benjamin Chiêm (Université catholique de Louvain, Louvain-la-Neuve, Belgium) Supervised classification of structural brain networks reveals gender differences
3. Marko Mihajlovic and Nikola Popovic (University of Niš, Serbia) Fooling a neural network with common adversarial noise

2019 Novi Sad, Serbia, 2 July 2019, as part of EUROCON 2019 (1–4 July 2019)

1. Ariane De Vroede (Katholieke Universiteit Leuven, Belgium) A 94 GHz voltage-boosted energy harvester in 45 nm CMOS achieving a peak efficiency of 21.2% at -8.5 dBm input power
2. Saeed Akhavan, Mahmoud Kamerei, and Hamid Soltanian-Zadeh (School of Electrical and Computer Engineering, University of Tehran, Iran) Spatio-temporal modeling of absence epileptic seizures using depth recordings
3. Gabriele Mosaico and Matteo Saviozzi (University of Genoa, Italy) A hybrid methodology for the day-ahead PV forecasting exploiting a clear sky model or artificial neural networks

2020 Originally scheduled for Palermo, Italy, 16 June 2020, as part of MELECON 2020 (16–18 June 2020), which was eventually held as a virtual conference on the WeConf platform on the original dates

1. Kristjan Stopar (University of Maribor, Slovenia) Device for visual kinesthetic navigation of the blind and visually impaired
2. Matthias Swiggers (Katholieke Universiteit Leuven, Belgium) A four-quadrant switched capacitor DC-DC convertor enabling power-efficient lab-grade potentiostats
3. Mark Cauchi (University of Malta, Malta) An improved variable neighbourhood search algorithm for selective dial-a-ride problem

2021 Niš, Serbia, 21 October 2021, as part of TELSIXS 2021, the 15th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service (20-22 October 2021), held in hybrid form

1. Olivier Leblanc¹, Loïc Tadrict², Nicolas Moreau¹, Boris Brun¹, Tristan Gilet², Benoît Hackens¹ (¹ Université catholique de Louvain, Louvain-la-Neuve, ² University of Liege, Liège, Belgium) An affordable pedagogical setup for wave-particle duality and applications to chaotic stadium cavity
2. Eva Boneš, Matija Marolt (University of Ljubljana, Slovenia) Automatic segmentation of the Golgi apparatus in volumetric data with approximate labels
3. Yazan Alnajjar, Jinane Mounsef (University of Rochester Institute of Technology Dubai, UAE) Next-generation network intrusion detection system (NG-NIDS)

2022 Palermo, Italy, 14 June 2022, as part of MELECON 2022 (14–16 June 2022)

1. Zixuan Huang (Imperial College London, UK) Beam-switching circularly polarized antenna array for cold-chain tracking RFID applications
2. Lorenzo Lagostina (Politecnico di Torino, Italy) Design of low-power arithmetic logic circuits for 45 nm CMOS technology
3. Emilija Čojbašić (University of Niš, Serbia) Machine learning as an aid to predicting clinical outcome after stroke

2023 Turin, Italy, 6 July 2023, as part of EUROCON 2023 (6–8 July 2023)

1. Jonathan Parion, Romain Scaffidi, Denis Flandre (Université catholique de Louvain, Louvain-la-Neuve, Belgium) Guy Brammertz, Bart Vermang (IMO-IMOMEC, Belgium) Low-temperature admittance spectroscopy for defect characterization in $\text{Cu}(\text{In,Ga})(\text{S,Se})_2$ thin-film solar cells
2. Jakub Lála, Stefano Angioletti-Uberti (Imperial College London, UK) Coarse-graining of molecular dynamics using neural ordinary differential equations

3. Qihan Yang, Wenqiang Lai, Ye Mao, Endong Sung, Jiangnan Ye (Imperial College London, UK) Knowledge distilled ensemble model for sEMG-based silent speech interface

The Dick Poortvliet Award (a plaque and an amount of \$250, funded by the regional SAC, for the Student Branch where the winner of the Student Paper Contest comes from) was established on 7 November 1996, to honour the 1995 Student Paper Contest Coordinator (as well as Past Region 8 Director and Past Region 8 Student Activities Chair) Dick C.J. Poortvliet, who died on 25 June 1995 in Limassol, Cyprus, where he attended DSP'95, the International Conference on Digital Signal Processing (26–28 June 1995) during which the oral finals of the 1995 Student Paper Contest took place.

8 IEEE Award recipients from Region 8

The IEEE currently bestows a Medal of Honor, fifteen Medals, thirty-three Technical Field Awards, two IEEE Service Awards, two Corporate Recognitions, two Prize Paper Awards, Honorary Memberships, one Scholarship, one Fellowship, a Staff Award and one Co-Sponsored Medal. The Medals are normally awarded to IEEE members.

8.1 Medal of Honor

The IEEE Medal of Honor is the highest IEEE award. The Medal was established in 1917 and is awarded for an exceptional contribution or an extraordinary career in the IEEE fields of interest. The candidate need not be a member of the IEEE. The IEEE Medal of Honor is sponsored by the IEEE Foundation.

- 1970** *Dennis Gabor*, UK and Ireland Section – For his ingenious and exciting discovery and verification of the principles of holography.
- 1993** *Karl Johan Åström*, Sweden Section – For fundamental contributions to theory and applications of adaptive control technology.
- 2017** *Kees A. Schouhamer Immink*, Benelux Section – For pioneering contributions to video, audio, and data recording technology, including compact disc, DVD, and Blu-ray.
- 2021** *Jacob Ziv*, Israel Section – For fundamental contributions to information theory and data compression technology, and for distinguished research leadership.

8.2 IEEE Major Medals

8.2.1 Alexander Graham Bell Medal

The IEEE Alexander Graham Bell Medal was established in 1976 and is awarded for exceptional contributions to the advancement of communications sciences and engineering. The Medal is sponsored by Alcatel-Lucent Bell Labs.

- 1979** *A. Christian Jacobaeus*, Sweden Section – For pioneering work in the theory of switching systems and technical leadership in the development of telecommunication systems.
- 1992** *James L. Massey*, Switzerland Section – For contributions to the theory and practical implementation of forward-error-correcting codes, multi-user communications, and cryptographic systems; and for excellence in engineering education.
- 2000** *Vladimir A. Kotelnikov*, Russia Section – For fundamental contributions to signal theory.
- 2003** *Joachim Hagenauer*, Germany Section – For contributions to soft decoding and its application to iterative decoding algorithm.
- 2015** *Frank Kelly*, UK and Ireland Section – For creating principled mathematical foundations for the design and analysis of congestion control, routing, and blocking in modern communication networks.
- 2023** *Ingeborg J. Hochmair-Desoyer* and *Erwin Hochmair*, Austria Section – For the research, development, and realization of multi-channel microelectronic cochlear implants.

8.2.2 Edison Medal

The IEEE Edison Medal was established in 1904 and is presented for a career of meritorious achievement in electrical science, electrical engineering or the electrical arts. The Medal is sponsored by Samsung Electronics Co. Ltd.

- 1973** *B.D.H. Tellegen*, Benelux Section – For a creative career of significant achievement in electrical circuit theory, including the gyrator.
- 1999** *Kees A. Schouhamer Immink*, Germany Section – For a career of creative contributions to the technologies of digital video, audio, and data recording.
- 2005** *Peter Lawrenson*, UK and Ireland Section – For outstanding contributions to the field of electrical machines, most notably the development and commercialization of switched reluctance drives.

- 2008** *Dov Frohman-Bentchkowsky*, Israel Section – For pioneering the development of the MOS Erasable, Programmable Read Only Memory (EPROM), a key enabler of the information age revolution.
- 2019** *Ursula Keller*, Switzerland Section – For pioneering and fundamental contributions to and leadership in useable, compact ultrafast laser technology, enabling applications in metrology, sensing, and biophotonics.
- 2020** *Frede Blaabjerg*, Denmark Section – For contributions to and leadership in power electronics, developing a sustainable society.

8.2.3 James H. Mulligan, Jr. Education Medal

The IEEE James H. Mulligan, Jr. Education Medal was established in 1956 and is awarded for a career of outstanding contributions to education in the fields of interest of IEEE. The medal was renamed in 1999 in honor of James H. Mulligan, Jr. The medal is sponsored by MathWorks, National Instruments Foundation, Pearson Prentice Hall and IEEE Life Members Committee.

- 1971** *Franz Ollendorff*, Israel Section – For contributions to the teaching of electrical engineering, especially the preparation of classic texts on electromagnetic fields, and for leadership in building a distinguished program in a new institute.
- 2007** *Andrew S. Tanenbaum*, Benelux Section – For contributions to education in computing, especially computer organization, networking and operating systems.

8.2.4 Medal for Engineering Excellence

The Medal for Engineering Excellence was established in 1986 and is presented for exceptional achievement in application engineering in the technical disciplines of the IEEE, for the benefit of the public and the engineering profession. The medal was discontinued in November 2009.

- 1994** *Heiner Sussner*, France Section – For engineering leadership in the demonstration of one gigabit per square inch storage density on a digital magnetic rigid disk.

8.2.5 Medal for Environmental & Safety Technologies

The IEEE Medal for Environmental and Safety Technologies was established in 2008 and is awarded for outstanding accomplishments in the application of technology in the fields of interest to the IEEE that improve the environment and/or public safety. The medal is sponsored by Toyota Motor Corporation.

- 2015** *Rodolfo Schöneburg*, *Marica Paurevic*, and *Hans Weisbarth*, Germany Section – For significant contributions to automotive safety through crash prevention and passenger protection using sensors, warning systems, and autonomous restraint systems.
- 2017** *Alberto Broggi*, Italy Section – For leadership in vehicular environmental perception, and for setting worldwide milestones in safe and reliable intelligent vehicles.
- 2018** *Jerome Faist*, Switzerland Section, and *Frank Klaus Tittel* – For pioneering contributions to the quantum cascade laser and optical chemical sensors for environmental sensing.
- 2023** *David James Coe*, UK and Ireland Section, *Gerald F. Deboy*, Austria Section and *Tatsuhiko Fujihira* – For contributions to the concept and realization of superjunction power devices that significantly improve power efficiency.

8.2.6 Founders Medal

The IEEE Founders Medal was established in 1952 and is awarded for outstanding contributions in the leadership, planning, and administration of affairs of great value to the electrical and electronics engineering profession. The Medal is sponsored by the IEEE Foundation.

- 1998** *Alan W. Rudge*, UK and Ireland Section – For distinguished leadership in the field of telecommunications and for advancement of the electrical and electronic engineering profession.
- 2019** *Sir Robin Keith Saxby*, UK and Ireland Section – For achievements in developing a globally successful electronics enterprise with an innovative approach to licensing of Intellectual Property.

8.2.7 Richard W. Hamming Medal

The IEEE Richard W. Hamming Medal was established in 1986 and is presented for exceptional contributions to information sciences, systems and/or technology. The Medal is sponsored by QUALCOMM, Inc.

- 1994** *Gottfried Ungerboeck*, Switzerland Section – For the development and application of trellis modulation to digital communications.
- 1995** *Jacob Ziv*, Israel Section – For contributions to information theory, and the theory and practice of data compression.
- 1996** *Mark S. Pinsker*, Russia Section – For outstanding contributions to information theory, statistical estimation and coding theory.
- 2003** *Claude Berrou* and *Alain Glavieux*, France Section – For the invention of turbo codes, which have revolutionized digital communications.
- 2006** *Vladimir I. Levenshtein*, Russia Section – For contributions to the theory of error-correcting codes and information theory, including the Levenshtein distance.
- 2007** *Abraham Lempel*, Israel Section – For pioneering work in data compression especially the Lempel-Ziv algorithm.
- 2012** *Amin Shokrollahi*, Switzerland Section, and *Michael G. Luby* – For the conception, development, and analysis of practical rateless codes.
- 2014** *Rüdiger Urbanke*, Switzerland Section, and *Thomas Richardson* – For fundamental contributions to coding theory, iterative information processing, and applications.
- 2015** *Imre Csiszár*, Hungary Section – For contributions to information theory, information-theoretic security, and statistics.
- 2017** *Shlomo Shamai*, Israel Section – For fundamental contributions to information theory and wireless communications.
- 2018** *Erdal Arikan*, Turkiye Section – For contributions to information and communications theory, especially the discovery of polar codes and polarization techniques.

8.2.8 Heinrich Hertz Medal

The IEEE Heinrich Hertz Medal was established in 1987 and is awarded for outstanding achievements in electromagnetic waves. The medal was discontinued in November 2009.

- 1995** *Jean Van Bladel*, Benelux Section
- 2001** *Adrianus T. De Hoop*, Benelux Section

8.2.9 Medal for Innovations in Healthcare Technology

The IEEE Medal for Innovations in Healthcare Technology was established in 2009 and is presented for outstanding contributions and/or innovations in engineering within fields of medicine, biology, and healthcare technology. The medal is sponsored by the IEEE Engineering in Medicine and Biology Society.

No recipients in Region 8.

8.2.10 Jack S. Kilby Signal Processing Medal

The IEEE Jack S. Kilby Signal Processing Medal was established in 1995 and is presented for outstanding achievements in signal processing. The Medal is sponsored by Texas Instruments, Incorporated.

- 2003** *Hans W. Schuessler*, Germany Section – For his role in the early development of the field of Digital Signal Processing, especially the theory, design, and implementation of analog and digital filters.
- 2017** *Martin Vetterli*, Switzerland Section – For fundamental contributions to advanced sampling, signal representations, and multirate and multiresolution signal processing.

8.2.11 Lamme Medal

The IEEE Lamme Medal was established in 1928 and is presented for meritorious achievement in the development of electrical or electronic power apparatus or systems. The award was discontinued in August 2008.

- 1992** *Dietrich R. Lambrecht*, Germany Section – For outstanding contributions to the advancement of turbine-generator engineering and technology, particularly superconducting rotor winding.
- 1994** *Michel E. Pouloujadoff*, France Section – For advancements in the theory and application of high-power electromagnetic apparatus, including transformers and electronically controlled machine drives.
- 1997** *André J. Calvaer*, Benelux Section – For outstanding contributions to the analysis of the dynamic performance of electric power systems, including the vital role of reactive power.
- 2000** *Joachim Holtz*, Germany Section – For pioneering inventions related to magnetically levitated high-speed trains, ac drive systems for railway traction and modulation theory of power converters.

8.2.12 Jun-ichi Nishizawa Medal

The IEEE Jun-ichi Nishizawa Medal was established in 2002 and is awarded for outstanding contributions to material and device science technology, including practical application. The medal is sponsored by the Federation of Electric Power Companies, Japan & Semiconductor Research Foundation.

- 2007** *Nicolaas Frans De Rooij*, Switzerland Section – For pioneering contributions to microsystem technology and effective transfer into industrial products and applications.
- 2008** *Wolfgang Helfrich*, Germany Section, *Martin Schadt*, Switzerland Section, and *James Ferguson* – For pioneering development of twisted-nematic liquid crystal technology.
- 2014** *Franz Laermer* and *Andrea Urban*, Germany Section – For inventing and developing the Bosch deep reactive ion etching process that has impacted the micro-electro-mechanical systems (MEMS) field.
- 2019** *Dieter Bimberg*, Germany Section, and *Yasuhiko Arakawa* and *Pallab Bhattacharya* – For contributions to the development and commercialization of quantum dot lasers.

8.2.13 Robert N. Noyce Medal

The IEEE Robert N. Noyce Medal was established in 1999 and is awarded for exceptional contributions to the microelectronics industry. The medal is funded in perpetuity through an endowment from the Intel Foundation.

- 2011** *Pasquale Pistorio*, Switzerland Section – For contributions to, and leadership in, the technology, business and environmental development of the global semiconductor and electronics industry.
- 2015** *Martin van den Brink*, Benelux Section – For technical and managerial leadership driving the continuation of optical lithography as the enabling technology for the semiconductor industry.
- 2023** *Luc Van Den Hove*, Benelux Section – For leadership in creating a worldwide research ecosystem in nano-electronics technology with applications ranging from high-performance computing to health.

8.2.14 Dennis J. Picard Medal for Radar Technologies and Applications

The IEEE Dennis J. Picard Medal for Radar Technologies and Applications was established in 1999 and is awarded for outstanding accomplishments in advancing the fields of radar technologies and their applications. The medal is sponsored by the Raytheon Company.

- 2009** *Philip M. Woodward*, UK and Ireland Section – For pioneering work of fundamental importance in radar waveform design, including the Woodward Ambiguity Function, the standard tool for waveform and matched filter analysis.
- 2010** *Alfonso Farina*, Italy Section – For continuous, innovative, theoretical and practical contributions to radar systems and adaptive signal processing techniques.
- 2016** *Nadav Levanon*, Israel Section – For contributions to radar signal design and analysis, pulse compression, and signal processing.
- 2017** *Hugh Griffiths*, UK and Ireland Section – For technical leadership and exceptional contributions to multistatic radar.
- 2019** *Richard Klemm*, Germany Section – For contributions to high-resolution radar, adaptive clutter suppression, and publications for the international radar system community.
- 2023** *Alberto Moreira*, Germany Section – For leadership and innovative concepts in the design, deployment, and utilization of airborne and space-based radar systems.

8.2.15 Medal in Power Engineering

The IEEE Medal in Power Engineering was established in 2008 and is awarded for outstanding contributions to the technology associated with the generation, transmission, distribution, application and utilization of electric power for the betterment of society. The medal is sponsored by IEEE Applications Society, IEEE Industrial Electronics Society, IEEE Power Electronics Society and IEEE Power and Energy Society.

- 2017** *Marian P. Kazmierkowski*, Poland Section – For leadership in and pioneering contributions to the development of power electronic converters and electric drive control systems.
- 2020** *Rik W. De Doncker*, Germany Section – For contributions to high-power and energy-conversion technologies.

8.2.16 Simon Ramo Medal

The IEEE Simon Ramo Medal was established in 1982 and is awarded for exceptional achievement in systems engineering and systems science. The medal is sponsored by Northrop Grumman.

- 1986** *Arnaldo Maria Angelini Enel*, Italy (Central & South) Section – For technical and managerial leadership in the integration of the Italian electric power system and for contributions to education in Systems Science and Engineering.
- 2004** *Boris E. Chertok* and *Nikolai N. Sheremetevsky*, Russia Section – For significant contributions to systems engineering and technical leadership of control systems design for the orbiting space station Mir (Peace).
- 2014** *Lyndon Evans*, Switzerland Section – For systems leadership of the Large Hadron Collider Project from conceptual design through completion of construction.
- 2018** *Heinz Stoewer*, Germany Section – For pioneering accomplishments in and technical leadership of space systems engineering, and for profound influence on teaching and practice of systems engineering.
- 2019** *Harold Lawson*, Sweden Section – For pioneering contributions to computer systems, systems engineering, and standards.

8.2.17 John von Neumann Medal

The IEEE John von Neumann Medal was established in 1990 and is presented for outstanding achievements in computer-related science and technology. The Medal is sponsored by IBM Corporation.

- 1997** *Maurice V. Wilkes*, UK and Ireland Section – For a lifelong career of seminal contributions to computing, including the first full-scale operational stored program computer and to the foundations of programming.
- 2002** *Ole-Johan Dahl* and *Kristen Nygaard*, Norway Section – For the introduction of the concepts underlying object-oriented programming through the design and implementation of SIMULA 67.
- 2011** *C.A.R. (Tony) Hoare*, UK and Ireland Section – For seminal contributions to the scientific foundation of software design.

8.2.18 IEEE/RSE James Clerk Maxwell Award

The IEEE/RSE James Clerk Maxwell Award was established in 2006 and is awarded for groundbreaking contributions that have had an exceptional impact on the development of electronics and electrical engineering or related fields.

- 2012** *Gerhard M. Sessler*, Germany Section – For pioneering contributions to electroacoustic transducers, the development of silicon microphone technology, and seminal work on electroactive materials.
- 2014** *David Neil Payne*, UK and Ireland Section – For ground-breaking contributions to optical fiber technologies and their application to optical communications.
- 2018** *Thomas Bryn Haug*, Sweden Section, and *Philippe Raymond Dupuis*, France Section – For leadership in the development of the first international mobile communications standard with subsequent evolution into worldwide smartphone data communication.
- 2019** *David Flynn*, UK and Ireland Section, and *David Jaggat* – For contributions to the development of novel Reduced Instruction Set Computer (RISC) architectures adopted in 100 billion+ microprocessor cores worldwide.
- 2022** *Ingo Wolff*, Germany Section – For the development of numerical electromagnetic field analysis techniques to design advanced mobile and satellite communication systems.

8.2.19 IEEE Frances E. Allen Medal

The IEEE Frances E. Allen Medal was established in 2020 by the IEEE Board of Directors, and is named in honor of Frances E. Allen, computing pioneer in the compilers area and an IEEE and IBM Fellow; it is presented for innovative work in computing leading to lasting impact on other aspects of engineering, science, technology, or society.

- 2022** *Eugene W. Myers*, Germany Section and *Webb Miller* – For pioneering contributions to sequence analysis algorithms and their applications to biosequence search, genome sequencing, and comparative genome analyses.

8.3 IEEE Recognitions

8.3.1 Honorary Membership

IEEE Honorary Members are elected by the IEEE Board of Directors from among those who have rendered meritorious service to mankind in IEEE's designated fields of interest and who are not members of the IEEE. The award is sponsored by the IEEE.

- 1982** *Brian D. Josephson*, UK and Ireland Section – For his prediction (discovery) of pair tunneling between superconductors which constitutes the basis of a Josephson junction technology for high speed and low power computing elements and memories.
- 1992** *Mark Krivocheev*, Russia Section – For technical contributions to television and leadership in developing international standardization.
- 1994** *Michel A.G. Carpentier*, Benelux Section – For leadership in pioneering the R&D and policy initiatives at the European Community level in the areas of environment and information and communication technologies.
- 1995** *Lars H. Ramqvist*, Sweden Section – For distinguished and far-sighted leadership of the Ericsson Group in a period of rapid technology change and market development.
- 1997** *Pekka J. Tarjanne*, Switzerland Section – For outstanding leadership and contributions to the implementation of new working methods and structures for the International Telecommunications Union.
- 2003** *Jorma Ollila*, Finland Section – For contributions to launching mobile communications, a major global industry that has fundamentally changed the way people communicate.
- 2007** *Ian C. McRae*, South Africa Section – For contributions to electrification and development of the electrical grid in Southern Africa.
- 2016** *Serge Haroche*, France Section – For the development of cavity quantum electrodynamics, leading to fundamental quantum physics studies and to a wide range of applications.

- 2016** *Rodolfo Stefano Zich*, Italy Section – For leadership in the global integration of electrical and electronics engineering education and research.
- 2017** *James Dyson*, UK and Ireland Section – For achievements in industrial design, entrepreneurship, and manufacturing technology, and for services to the engineering profession.
- 2018** *Anton Zeilinger*, Austria Section – For pioneering conceptual and experimental contributions to the development of quantum communications and encryption.
- 2020** *Borys Paton*, Ukraine Section – For lifetime achievements within IEEE technical fields of interest in the development of processes of electrometallurgy, materials science, electric welding of metals, and biological tissues.

8.4 IEEE Service Awards

8.4.1 Richard M. Emberson Award

The IEEE Richard M. Emberson Award was established in 1986 and is presented for distinguished service to the development, viability, advancement, and pursuit of the technical objectives of the IEEE. The Award is sponsored by IEEE Technical Activities.

No recipients in Region 8.

8.4.2 Haraden Pratt Award

The IEEE Haraden Pratt Award was established in 1971 and is presented to recognize individuals who have rendered outstanding service to the IEEE. The Award is sponsored by the IEEE Foundation.

- 1986** *Robert C. Winton*, UK and Ireland Section – For outstanding service to the IEEE in furthering its transnational activities in Region 8.
- 1996** *Walter E. Proebster*, Germany Section – For outstanding leadership and service to the Institute, especially for fostering a variety of activities and membership growth in Region 8.
- 2003** *Charles W. Turner*, UK and Ireland Section – For his outstanding leadership in extending the transnational activities of the IEEE into Eastern & Central Europe.
- 2008** *Maurice Papo*, France Section – For furthering IEEE transnational activities and for conceiving and implementing major operational improvements leading to more effective and efficient IEEE volunteer activities.
- 2011** *Levent Onural*, Turkiye Section – For leadership in the worldwide promotion of the values embraced by IEEE.
- 2023** *Marko Delimar*, Croatia Section – For inspired vision and steadfast leadership in improving global IEEE influence, member engagement, and governance.

8.5 IEEE Corporate Recognitions

8.5.1 Corporate Innovation Recognition

The Corporate Innovation Recognition was established in 1985 and is presented for outstanding and exemplary contributions by an industrial entity, governmental or academic organization, or other corporate body, which have resulted in major advancement of electrotechnology. The award is sponsored by the IEEE.

- 1992** *Ericsson Radio Systems AB*, Sweden Section – For significant contributions to the development and implementation of analog and digital cellular radio technology.
- 1992** *Philips Electronics*, Benelux Section – For pioneering research in electronics and the development of much of the basic technology leading to the creation of the optical recording industry.
- 1999** *Nokia Corporation*, Finland Section – For creation of a new class of integrated communication devices as exemplified by the Nokia 9000 Communicator, and for leadership in the development of cellular network systems.
- 2006** *ARM Ltd.*, Cambridge, UK and Ireland Section – For creating the ARM microprocessor technology that has been successfully embedded into a broad spectrum of today's digital consumer electronic products.
- 2011** *IMEC*, Benelux Section – For continuous contributions to CMOS technology and for innovations in global business development and university-industry collaborations.

8.5.2 Ernst Weber Engineering Leadership Recognition

The IEEE Ernst Weber Engineering Leadership Recognition was established in 1985 and is awarded for exceptional managerial leadership in the fields of interest to the IEEE. The award is sponsored by the IEEE.

- 1989** *Arnaldo Maria Angelini Enel*, Italy (Central & South) Section – For his leadership and exceptional contribution to the reconstruction of his country after the war and the development of electric power systems elevating the level and the prestige of the engineering profession.
- 1993** *Percy Barnevik*, Switzerland Section – For managerial leadership in creating a global enterprise in the areas of electric power apparatus and systems, transportation, and environmental technologies.
- 2001** *Christopher Martin Earnshaw*, UK and Ireland Section – For technical and managerial leadership as Chief Technology Officer of British Telecommunications in the development and introduction of advanced networking technologies and communications platforms.
- 2004** *Pasquale Pistorio*, Switzerland Section – For leadership in revitalizing the semiconductor industry in Europe and increasing its influence worldwide.

8.5.3 Theodore W. Hissey Outstanding Young Professional Award

The IEEE Theodore W. Hissey Outstanding Young Professional Award is the newest (established in 2017) IEEE-level recognition, named in honor of IEEE Life Fellow Theodore W. Hissey for his tremendous support of the IEEE Young Professional Community.

- 2023** *Anna Zakrzewska*, UK and Ireland Section – For contributions in telecommunications research and innovation, leading to global commercialization, while inspiring tomorrow’s young technology leaders through STEM volunteering work.

8.6 IEEE Prize Paper Awards

8.6.1 W.R.G. Baker Prize Paper Award

The IEEE W.R.G. Baker Prize Paper Award was established in 1956 and is presented for the most outstanding paper reporting original work published in any IEEE archival publications (such as TRANSACTIONS, JOURNALS, and LETTERS), MAGAZINES, or PROCEEDINGS published during a three to five year window prior to the presentation of the award.

- 1983** *Kurt Feser*, Switzerland Section, *Ryszard Malewski*, *Chinh T. Nguyen* and *Nils Hylten-Cavallius*, “Elimination of the skin effect error in heavy-current shunts,” IEEE Transactions on Power Apparatus and Systems, March 1981.
- 1986** *Adi Shamir*, Israel Section, “A polynomial-time algorithm for breaking the basic Merkle-Hellman cryptosystem,” IEEE Transactions on Information Theory, September 1984.
- 1987** *James L. Massey*, Switzerland Section, and *Peter Mathys*, “The collision channel without feedback,” IEEE Transactions on Information Theory, March 1985.
- 1991** *Keith Clover*, UK and Ireland Section, *John C. Doyle*, *Bruce A. Francis* and *Pramod P. Khargonekar*, “State-space solutions to standard H_2 and H_∞ control problems,” IEEE Transactions on Automatic Control, August 1989.
- 2000** *Petra Stoica*, Sweden Section, and *A. Lee Swindlehurst*, “Maximum likelihood methods in radar array signal processing,” Proceedings of IEEE, Vol. 86, No. 2, February 1998, pp. 421–441.
- 2012** *Gerhard Krieger*, *Alberto Moreira*, *Hauke Fiedler*, *Irena Hajnsek*, *Marian Werner*, *Marwan Younis* and *Manfred Zink*, Germany Section, “TanDEM-X: A satellite formation for high-resolution SAR interferometry,” IEEE Transactions on Geoscience and Remote Sensing, Vol. 45, Issue 11, Part 1, November 2007, pp. 3317–3341.
- 2013** *Erdal Arıkan*, Turkiye Section, “Channel polarization: A method for constructing capacity-achieving codes for symmetric binary-input memoryless channels,” IEEE Transactions on Information Theory, Vol. 5, Issue 7, July 2009, pp. 3051–3073.
- 2014** *Mário A.T. Figueiredo*, Portugal Section, *Stephen J. Wright* and *Robert Nowak*, “Sparse reconstruction by separable approximation,” IEEE Transactions on Signal Processing, Vol. 57, Issue 7, July 2009, pp. 2479–2493.

8.6.2 Donald G. Fink Prize Paper Award

The IEEE Donald G. Fink Prize Paper Award was established in 1979 and is presented for the outstanding survey, review, or tutorial paper in any of the IEEE TRANSACTIONS, JOURNALS, MAGAZINES, or PROCEEDINGS issued between 1 January and 31 December of the preceding year. The Award is sponsored by the IEEE Life Members Committee.

- 1989** *Karl Johan Åström*, Sweden Section – Adaptive Feedback Control.
- 2000** *Ezio Biglieri*, Italy (North) Section, *Shlomo Shamai*, Israel Section, and *John Proakis* – Fading channels: Information-theoretic and communications aspects.
- 2001** *Xin Yao*, UK and Ireland Section – Evolving artificial neural networks.
- 2005** *Christoph Hagleitner*, *Andreas Hierlemann*, *Henry Baltes*, Switzerland Section, and *Oliver Brand* – Microfabrication techniques for chemical/biosensors.
- 2006** *Suhas N. Diggavi*, Switzerland Section, *Naofal Al-Dhahir*, *A. Stamoulis* and *A.R. Calderbank* – Great expectations: The value of spatial diversity in wireless networks.
- 2007** *Arturas Zukauskas*, Lithuania Section, and *Michael Shur* – Solid-state lighting: Towards superior illumination.
- 2010** *John W. Arthur*, UK and Ireland Section – The fundamentals of electromagnetic theory revisited.
- 2016** *Nicholas W. Roberts*, UK and Ireland Section, *et al.* – Bioinspired polarization imaging sensors: From circuits and optics to signal processing algorithms and biomedical applications.

8.6.3 Leon K. Kirchmayer Prize Paper Award

The IEEE Leon K. Kirchmayer Prize Paper Award was established in 1997 and is presented for the most outstanding paper in any IEEE publication issued between 1 January and 31 December of the preceding year by an author or joint authors under thirty years of age at the time the original manuscript was submitted. The award was discontinued in 2002.

No recipients in Region 8.

8.6.4 Browder J. Thompson Memorial Prize Paper Award

The IEEE Browder J. Thompson Memorial Prize Paper Award was established in 1945 and is presented for the most outstanding paper in any IEEE publication issued between 1 January and 31 December of the preceding year by an author or joint authors under thirty years of age at the time the original manuscript was submitted. This award was discontinued after the 1997 Award and replaced by the Leon K. Kirchmayer Prize Paper Award.

- 1974** *Jørn Justesen*, Denmark Section – A class of constructive asymptotically good algebraic codes.
- 1982** *Stig Skelboe*, Denmark Section – Computation of the periodic steady-state response of nonlinear networks by extrapolation methods.
- 1988** *Lothar Thiele*, Germany Section – On the sensitivity of linear state-space systems.

8.7 IEEE Technical Field Awards

8.7.1 Biomedical Engineering Award

The IEEE Biomedical Engineering Award was established in 2010 and is presented for outstanding contributions to the field of biomedical engineering.

- 2015** *Christofer Toumazou*, UK and Ireland Section – For outstanding contributions to biomedical circuit technology.

8.7.2 Clelio Brunetti Award

The IEEE Clelio Brunetti Award was established in 1975 and is presented for outstanding contributions to nanotechnology and miniaturization in the electronic arts. The Award is funded by Taiwan Semiconductor Manufacturing Company Limited and through a bequest of the Clelio Brunetti family.

- 1979** *Geoffrey W.A. Dummer*, UK and Ireland Section, and *Philip J. Franklin* – For contributions to materials development and fabrication techniques for miniature passive electronic components and assemblies.
- 2008** *Michel Bruel*, France Section – For inventing Smart Cut™ layer transfer technology that enabled widespread adoption of SOI for CMOS circuits.
- 2013** *Giorgio Baccarani*, Italy Section – For contributions to scaling theory and modeling of metal oxide semiconductor (MOS) devices.
- 2014** *Martin van den Brink*, Benelux Section – For designing new lithography tool concepts and bringing these to the market, enabling micrometer to nanometer imaging.
- 2017** *Guido Groeseneken*, Benelux Section – For contributions to the characterization and understanding of the reliability physics of advanced MOSFET nanodevices.
- 2018** *Siegfried Selberherr*, Austria Section – For pioneering contributions to Technology Computer Aided Design.
- 2022** *Simon Deleonibus*, France Section – For contributions to and leadership in nanoscale CMOS device and process technologies.
- 2023** *John Robertson*, UK and Ireland Section – For theoretical contributions to the integration of high-k oxides on semiconductors.
- 2024** *Adrian Mihai Ionescu*, Switzerland Section – For leadership and contributions to the field of energy-efficient steep slope devices and technologies.

8.7.3 Components, Packaging, and Manufacturing Technology Award

The IEEE Components, Packaging, and Manufacturing Technology Award was established in 2002 and is awarded for meritorious contributions to the advancement of components, electronic packaging or manufacturing technologies. The award is sponsored by the IEEE Components, Packaging and Manufacturing Technology Society.

- 2010** *Herbert Reichl*, Germany Section – For contributions to the integration of reliability in electronic systems, and leadership in research and education in electronic packaging.
- 2020** *Peter Ramm*, Germany Section and *Mitsumasa Koyanagi* – For pioneering contributions leading to the commercialization of 3D wafer and die level stacking packaging.
- 2023** *Guoqi (Kouchi) Zhang*, Benelux Section – For scientific and technological leadership in “More than Moore” (MtM) packaging, codesigning, and reliability.

8.7.4 Control Systems Award

The IEEE Control Systems Award was established in 1980 and is presented for outstanding contributions to control systems engineering, science, or technology. The Award is sponsored by the IEEE Control Systems Society.

- 1982** *Howard H. Rosenbrock*, UK and Ireland Section – For contributions to multivariable control theory and design methods.
- 1990** *Karl Johan Åström*, Sweden Section – For fundamental contributions in control theory with emphasis on its practical application.
- 1993** *Moshe M. Zakai*, Israel Section – For contributions to non-linear stochastic analysis, and its applications to control systems.
- 1996** *Vladimir A. Yakubovich*, Russia Section – For pioneering and fundamental contributions to stability analysis and optimal control.
- 1998** *Jan C. Willems*, Benelux Section – For seminal contributions to control theory and leadership in systems research.
- 2001** *Keith Glover*, UK and Ireland Section – For pioneering and fundamental contributions to robust controller design and model order reduction.
- 2003** *Nikolai Nicolaevich Krasovski*, Russia Section – For pioneering contributions to the theories of stability, control, and differential games.
- 2005** *Manfred Morari*, Switzerland Section – For pioneering contributions to the theory and application of robust process, model predictive, and hybrid systems control.

- 2007** *Lennart Ljung*, Sweden Section – For seminal contributions to system identification and its impact on industrial practice.
- 2009** *David Q. Mayne*, UK and Ireland Section – For contributions to the application of optimization to modern control theory.
- 2012** *Alberto Isidori*, Italy Section – For pioneering contributions to nonlinear control theory.

8.7.5 Electromagnetics Award

The IEEE Electromagnetics Award was established in 1996 and is presented for outstanding contributions to electromagnetics in theory, application or education. The Award is sponsored by the IEEE Antennas and Propagation, Microwave Theory and Techniques, Geoscience and Remote Sensing and Electromagnetic Compatibility Societies.

- 2008** *Werner Wiesbeck*, Germany Section – For innovative electromagnetic applications in communication systems, remote sensing, and EM compatibility.
- 2016** *Giorgio Franceschetti*, Italy Section – For leadership in the academic world, teaching, research, and scientific activities in advanced electromagnetics.

8.7.6 James L. Flanagan Speech and Audio Processing Award

The IEEE James L. Flanagan Award was established in 2002 and is presented for an outstanding contribution to the advancement of speech and/or audio signal processing. The award is sponsored by the IEEE Signal Processing Society.

- 2004** *Gunnar Fant*, Sweden Section, and *Kenneth N. Stevens* – For fundamental contributions to the theory and practice of acoustic phonetics and speech perception.
- 2015** *Stephen John Young*, UK and Ireland Section – For pioneering contributions to the theory and practice of automatic speech recognition and statistical spoken dialogue systems.
- 2019** *Hermann Ney*, Germany Section – For pioneering contributions to statistical and computational modeling for speech recognition and machine translation.
- 2022** *Hervé Bourlard*, Switzerland Section, and *Nelson Morgan* – For contributions to neural networks for statistical speech recognition.
- 2023** *Alexander Waibel*, Germany Section – For pioneering contributions to spoken language translation and supporting technologies.

8.7.7 Fourier Award for Signal Processing

The IEEE Fourier Award for Signal Processing was established in 2012 and is presented for an outstanding contribution to the advancement of signal processing, other than in the areas of speech and audio processing.

- 2018** *Peter Stoica*, Sweden Section – For broad contributions to research and education in statistical signal processing and its applications.
- 2022** *Ali Sayed*, Switzerland Section – For contributions to the theory and practice of adaptive signal processing.
- 2024** *Stéphane G. Mallat*, France Section – For contributions to the theory and applications of wavelets and machine learning.

8.7.8 Andrew S. Grove Award

The IEEE Andrew S. Grove Award was established in 1999 and is presented for outstanding contributions to solid-state devices and technology. The award is sponsored by the IEEE Electron Devices Society.

- 2000** *Wolfgang Fichtner*, Switzerland Section – For outstanding contributions to semiconductor device simulations.
- 2012** *Jean-Pierre Colinge*, UK and Ireland Section – For contributions to silicon-on-insulator devices and technology.
- 2017** *Sorin Cristoloveanu*, France Section – For contributions to silicon-on-insulator technology and thin body devices.
- 2022** *Heike Riel*, Switzerland Section – For contributions to materials for nanoscale electronics and organic light-emitting devices.

8.7.9 William M. Habirshaw Award

The William M. Habirshaw Award was presented for outstanding contributions in the field of the transmission and distribution of electric power. This award was discontinued after the 1986 Award and replaced by the IEEE Herman Halperin Electric Transmission and Distribution Award.

1971 *Gunnar Jancke*, Sweden Section – For leadership in the creation of the world’s first 400 kV extra-high voltage transmission system, including the application of series capacitors at that voltage.

1976 *Francis John Lane*, UK and Ireland Section – For his international leadership in development and application of high-voltage ac and dc transmission.

8.7.10 Herman Halperin Electric Transmission and Distribution Award

The IEEE Herman Halperin Electric Transmission and Distribution Award was established in 1986 and is awarded for outstanding contributions to electric transmission and distribution. The Award is sponsored by the Robert and Ruth Halperin Foundation, in memory of the late Herman & Edna Halperin, and the IEEE Power and Energy Society.

1988 *Luigi Paris*, Italy (Central & South) Section – For contributions to the development of Extra- and Ultra-High Voltage transmission engineering technology.

2004 *Andrew John Eriksson*, Norway Section – For lightning research and its application to lightning protection of transmission lines and substations.

2014 *Willem Boone*, Benelux Section – For successful international leadership and guidance in understanding critical factors affecting power cable life and in improving diagnostic test procedures.

2015 *Wolfram Boeck*, Germany Section – For contributions to the understanding of dielectric behavior of SF6 insulated systems for high- and extra-high-voltage substations and transmission lines.

2020 *Dusan Povh*, Germany Section – For contributions to the development and applications of HVDC and FACTS.

2023 *Nikolaos D. Hatzargyriou*, Greece Section – For contributions to the development of microgrids and leadership in distributed and decentralized smart distribution networks.

8.7.11 Masaru Ibuka Consumer Electronics Award

The IEEE Masaru Ibuka Consumer Electronics Award was established in 1987 and is presented for outstanding contributions in the field of consumer electronics technology. The Award is sponsored by Sony Corporation.

1989 *Johannes Petrus (Joop) Sinjou*, Benelux Section, and *Heitaro Nakajima* – For technical innovation and leadership in the development of the digital audio compact disk system and the achievement of international cooperation in both the development and introduction of this system.

1993 *George L. Brantingham*, Italy (Central & South) Section, *Paul S. Breedlove* and *Richard H. Wiggins* – For pioneering contributions to consumer electronics products employing synthetic speech for education and entertainment.

1996 *Kees A. Schouhamer Immink*, Benelux Section – For pioneering contributions to consumer digital audio and video recording products.

1999 *Leonardo Chiariglione*, Italy (North) Section – For technical leadership in the development of the Moving Picture Experts Group (MPEG) international standards for motion video and audio.

2001 *Ulrich Reimers*, Germany Section – For visionary leadership in the development of digital video broadcast (DVB) Standards and implementation guidelines for satellite, terrestrial and cable equipment.

2004 *Karlheinz Brandenburg*, Germany Section – For major contributions to digital audio source coding.

2012 *Gisle Bjøntegaard*, Norway Section, *Thomas Wiegand*, Germany Section, and *Gary J. Sullivan* – For leadership and technical contributions to the development of the globally deployed video coding standard H.264/MPEG4-AVC.

- 2013** *Martin Dietz*, Germany Section, and *Kristofer Kjörning* and *Lars Liljerd*, Sweden Section – For pioneering innovations in digital audio coding, technology leadership, and contributions to the development of High-Efficiency AAC (HE-AAC).
- 2020** *Eben C. Upton*, UK and Ireland Section – For creating an inexpensive single-board computer and surrounding ecosystem for education and consumer applications.
- 2024** *Stephen B. Furber* and *Sophie Wilson*, UK and Ireland Section – For the design of the 32-bit ARM RISC micro-processor.

8.7.12 Award in International Communication

The IEEE Award in International Communication was established in 1966 and is awarded for outstanding contributions to international communication. The award was discontinued in November 2007.

- 1966** *E. Maurice Deloraine*, France Section – In consideration of his outstanding technical and scientific contributions in the field of international communication extending over a period of more than 45 years and particularly for his active leadership in many fields of communication in Europe and in the U.S.A.
- 1970** *Herre Rinia*, Benelux Section – For outstanding contributions as a distinguished research organizer and leader in the technology of international communications.
- 1972** *Frank de Jager* and *Johannes A. Greefkes*, Benelux Section – For their contributions to communication systems research, in particular for their inventions in the delta-modulation area.
- 1973** *Vladimir A. Kotelnikov*, Russia Section – For fundamental contributions to communication theory and practice, and for pioneering research and leadership in radar astronomy.
- 1974** *Leslie H. Bedford*, UK and Ireland Section – For his outstanding pioneering and development work in the fields of telecommunications and radar.
- 1978** *F. Louis H.M. Stumpers*, Benelux Section – For contributions to the theory and application of frequency modulation and for the promotion of radio sciences on an international level.
- 1979** *A. Nejat Ince*, Benelux Section – For contributions to satellite communications systems and the planning and design of automatically switched international communications.
- 1981** *Richard Cyril Kirby*, Switzerland Section – For sustained leadership in the development and management of international radio communications.
- 1989** *Theodor Irmer*, Switzerland Section – For leadership in international standards development for digital communications and integrated digital networks.
- 1992** *Francesco Carassa*, Italy (North) Section – For original contributions in the field of microwave radio relay and satellite communications.
- 1993** *Pekka J. Tarjanne*, Switzerland Section – For his vision and leadership in re-structuring and re-orienting the International Telecommunication Union to the new telecommunications environment.
- 1994** *Stephen Robin Temple*, UK and Ireland Section – For contributions to the development and furtherance of worldwide telecommunications standards.
- 1997** *Maurizio Decina*, Italy (North) Section – For leadership and contributions to international digital network development and for fostering international cooperation.
- 2002** *Karl Heinz Rosenbrock*, France Section – For leadership in Pan-European and International standardization that has created innovative modes of cooperation that has resulted in technical agreements that serve the global community.

8.7.13 Internet Award

The IEEE Internet Award was established in 1999 and is presented for exceptional contributions to the advancement of Internet technology for network architecture, mobility and/or end-use applications. The award is sponsored by Nokia Corporation.

- 2000** *Donald W. Davies*, UK and Ireland Section, *Paul Baran*, *Leonard Kleinrock* and *Lawrence Roberts* – For their

early, preeminent contributions in conceiving, analyzing and demonstrating packet switching networks, the foundation technology of the Internet.

- 2001** *Louis H. Pouzin*, France Section – For his pioneering development and effective advocacy of datagram networking, the technology that enabled the rapid, inexpensive, decentralized expansion of the Internet.
- 2012** *Mark Handley*, UK and Ireland Section – For contributions to Internet multicast, telephony, congestion control and the shaping of open Internet standards and open-source systems in all these areas.
- 2014** *John Crowcroft*, UK and Ireland Section – For contributions to research in and teaching of Internet protocols, including multicast, transport, quality of service, security, mobility, and opportunistic networking.

8.7.14 Reynold B. Johnson Data Storage Device Technology Award

The IEEE Reynold B. Johnson Data Storage Device Technology Award was established in 2004 and is presented for outstanding contributions to the advancement of information storage with emphasis on technical contributions in computer data storage device technology. The award was discontinued in February 2011.

No recipients in Region 8.

8.7.15 Reynold B. Johnson Information Storage Systems Award

The IEEE Reynold B. Johnson Information Storage Systems Award was established in 1992 and is presented for outstanding contributions to information storage, with emphasis on computer storage systems. The Award is sponsored by Hitachi Data Systems.

- 1998** *Jean-Pierre Lazzari*, France Section – For contributions and key innovations in media and heads for magnetic disk drives.
- 2005** *François B. Dolivo*, Switzerland Section – For the application of digital signal processing to the magnetic recording channel in hard disk drives.
- 2015** *Dov Moran, Amir Ban, and Simon Litsyn*, Israel Section – For pioneering contributions to storage systems based on flash memory.

8.7.16 Richard Harold Kaufmann Award

The IEEE Richard Harold Kaufmann Award was established in 1986 and is presented for outstanding contributions in industrial systems engineering. The Award is sponsored by the IEEE Industry Applications Society.

- 2021** *Stephen Dominick James McArthur*, UK and Ireland Section – For innovative contributions to the advancement of intelligent systems for power engineering applications.
- 2024** *Giuseppe Buja*, Italy Section – For fundamental contributions to modulation and control of industrial drives.

8.7.17 Joseph F. Keithley Award in Instrumentation and Measurement

The IEEE Joseph F. Keithley Award in Instrumentation and Measurement was established in 2000 for outstanding contributions in electrical measurement. The Award is sponsored by Keithley Instruments, Inc.

- 2006** *Alessandro M. Ferrero*, Italy (North) Section – For advancing the measurement of electrical quantities in electric power systems under non-sinusoidal conditions.
- 2009** *Brian Peter Kibble*, UK and Ireland Section – For pioneering experiments and techniques in the field of fundamental electrical metrology leading to the realization of SI units.
- 2012** *Rik Pintelon*, Benelux Section – For the development of innovative system identification methods for measurement applications.
- 2015** *Jean-Charles Bolomey*, France Section – For pioneering contributions to efficient modulated probe array technology for fast electromagnetic near-field techniques and microwave imagery.

- 2020** *Dario Petri*, Italy Section – For contributions to measurement fundamentals and signal processing techniques in instrumentation and measurement.
- 2024** *Deepak G. Uttamchandani*, UK and Ireland Section – For contributions to photonics-based optical frequency and wavelength domain instrumentation and measurement.

8.7.18 Mervin J. Kelly Award

The IEEE Mervin J. Kelly Award was bestowed in recognition of outstanding contributions in the field of telecommunication. This award was discontinued in 1975.

- 1969** *Hendrik C.A. van Duuren*, Benelux Section – For his fundamental contributions to data communications.
- 1974** *Harold M. Barlow*, UK and Ireland Section – For outstanding work in the measurement and properties of radio frequency waves, and their application to telecommunications.

8.7.19 Gustav Robert Kirchhoff Award

The IEEE Gustav Robert Kirchhoff Award was established in 2003 and is presented for outstanding contribution to the fundamentals of any aspect of electronic circuits and systems that has a long-term significance or impact. The Award is sponsored by the IEEE Circuits and Systems Society.

- 2008** *Alfred Fettweis*, Germany Section – For sustained contributions to circuits, systems, and signal processing, especially his seminal work on wave digital filters.
- 2017** *Marcel Pelgrom*, Benelux Section – For seminal contributions to systematic analysis of random offsets in semiconductor devices and their impact on circuits.
- 2020** *Martin Hasler*, Switzerland Section – For fundamental contributions to nonlinear circuit theory and nonlinear dynamics.
- 2022** *Joos Vandewalle*, Benelux Section – For fundamental contributions to mathematical foundations of circuits and systems.

8.7.20 Koji Kobayashi Computers and Communications Award

The IEEE Koji Kobayashi Computers and Communications Award was established in 1986 and is awarded for outstanding contributions to the integration of computers and communications. The Award is sponsored by NEC Corporation.

- 1991** *Martin Reiser*, Switzerland Section, and *Stephen S. Lavenberg* – For fundamental contributions to the theory and practice of computer and communications systems performance modeling.
- 1993** *Gottfried Ungerboeck*, Switzerland Section – For contributions to signal processing for data communications, specifically for pioneering trellis-coded modulation.
- 2000** *Adi Shamir*, Israel Section, *Ronald Linn Rivest* and *Leonard Adleman* – For the revolutionary invention of the RSA public key cryptosystem which is the first to be widely-adopted.
- 2005** *Frank Kelly*, UK and Ireland Section – For contributions to the development of fundamental theories for the understanding, performance evaluation, and enhancement of telecommunications networks.
- 2011** *Rüdiger L. Urbanke*, Switzerland Section, and *Thomas J. Richardson* – For developing the theory and practice of transmitting data reliably at rates approaching channel capacity.
- 2024** *Anja Feldmann*, Germany Section – For contributions to the field of networking and Internet technologies, specifically to traffic engineering, network measurements, and Internet protocols.

8.7.21 Eli Lilly Award in Medical and Biological Engineering

The IEEE Eli Lilly Medical and Biological Engineering Award was established in 1992 and is presented for outstanding achievement in, and contribution to, the field of medical and biological engineering. The award was discontinued in 2000.

1993 *Max Anliker*, Switzerland Section – For five decades of outstanding achievements and contributions to biological engineering.

8.7.22 Morris E. Leeds Award

The IEEE Morris E. Leeds Award was established in 1958 and is presented for outstanding contributions in the field of electrical measurement. Special consideration is given to contributions made before the candidate's thirty-sixth birthday. The award was discontinued in 2000.

1982 *Lothar Rohde*, Germany Section – For contributions to the field of precise electronic measurement equipment for very high frequencies.

8.7.23 Morris N. Liebmann Memorial Award

The IEEE Morris N. Liebmann Memorial Award was established in 1919 and is awarded for important contributions to emerging technologies recognized within recent years. This award was discontinued after the 2000 award and replaced by the IEEE Daniel E. Noble Award.

1971 *Martin Ryle*, UK and Ireland Section – For his contributions in applying aperture synthesis to extend the capabilities of radio telescopes, thereby increasing man's knowledge of the Universe.

1977 *Horst H. Berger* and *Siegfried K. Wiedmann*, Germany Section – For the invention and exploration of the Merged Transistor Logic, MTL.

8.7.24 Jack A. Morton Award

The IEEE Jack A. Morton Award was established in 1974 and is presented for outstanding contributions in the field of solid-state devices. This award was discontinued after the 1999 Award and replaced by the IEEE Andrew S. Grove Award.

1982 *Dov Frohman-Bentchkowsky*, Israel Section – For contributions to non-volatile semiconductor memories.

8.7.25 William E. Newell Power Electronics Award

The IEEE William E. Newell Power Electronics Award was established in 2005 and is awarded for outstanding contributions to the advancement of power electronics. The Award is sponsored by the IEEE Power Electronics Society.

2008 *Istvan Nagy*, Hungary Section – For leadership in the research, development, worldwide promotion, and university education in power electronics technology.

2012 *Leo Lorenz*, Germany Section – For contributions to the development of power semiconductor devices and integrated power modules.

2013 *Rik W. De Doncker*, Germany Section – For contributions to the development of new components, topologies, and controls in power electronic systems.

2014 *Frede Blaabjerg*, Denmark Section – For contributions to power electronics in renewable energy and adjustable speed drives.

2016 *Johann W. Kolar*, Switzerland Section – For contributions to the advancement of three-phase pulse-width modulation (PWM) converter systems and power electronics education.

2018 *Rainer Marquardt*, Germany Section – For development of the modular multilevel converter application in medium drives and high-voltage DC transmission systems.

8.7.26 Daniel E. Noble Award for Emerging Technologies

The IEEE Daniel E. Noble Award for Emerging Technologies was established in 2000 and is awarded for outstanding contributions to emerging technologies recognized within recent years. The Award is sponsored by Motorola Foundation. In 2022, the award was renamed to the Lotfi A. Zadeh Award for Emerging Technologies. Prof. Zadeh was known as the “father of fuzzy logic.” Previously known as the Morris N. Liebmann Memorial Award, this award was established in 1919 to recognize outstanding contributions to emerging technologies.

2007 *Richard H. Friend*, UK and Ireland Section, *Stephen R. Forrest* and *Ching Tang* – For pioneering contributions to the development of organic light emitting diodes (OLEDs).

8.7.27 Frederik Philips Award

The IEEE Frederik Philips Award was established in 1971 and is awarded for outstanding accomplishments in the management of research and development resulting in effective innovation in the electrical and electronics industry. The Award is sponsored by Philips Electronics N.V.

1971 *Frederik J. (Frits) Philips*, Benelux Section – For fostering management of research and development that has been effective in the creation of numerous new products.

1982 *Werner J. Kleen*, Germany Section – For technical and managerial roles in the development and manufacture of microwave tubes in Europe.

1997 *Roland P.O. Huber*, Benelux Section – For outstanding leadership in Pan European research collaboration in communications networks and services.

1999 *Roger J. Van Overstraeten*, Benelux Section – For leadership in the creation and management of the Interuniversity Microelectronics Center (IMEC).

2008 *Gilbert J. Declerck*, Benelux Section – For leadership in the creation of international R&D alliances in semiconductor technologies.

2015 *Benedetto Vigna*, Switzerland Section – For leadership in conceiving, developing, and commercializing micro-electro-mechanical systems (MEMS).

8.7.28 Photonics Award

The IEEE Photonics Award was established in 2002 and awarded for outstanding achievement(s) in photonics. The award is sponsored by the IEEE Photonics Society.

2007 *David Neil Payne*, UK and Ireland Section – For pioneering contributions to the development and commercialization of optical fiber-based technologies for communications, sensors, and high power applications.

2015 *Philip St. John Russell*, Germany Section – For pioneering contributions to the conception and realization of photonic crystal fibers.

2018 *Ursula Keller*, Switzerland Section – For seminal contributions to ultrafast laser technology enabling important industrial applications and novel scientific breakthroughs.

2023 *Roel Baets*, Benelux Section – For pioneering research in integrated photonics, including silicon, silicon-nitride, III-V devices, and their heterogeneous integration.

8.7.29 Emanuel R. Piore Award

The IEEE Emanuel R. Piore Award was established in 1976 and is presented for outstanding contributions in the field of information processing in relation to computer science. The award is sponsored by the Piore Award Fund.

1983 *Niklaus Wirth*, Switzerland Section – For creative contribution to programming language and design methodology as exemplified by his development of the Pascal language.

2002 *Brian Randell*, UK and Ireland Section – For seminal contributions to and leadership in computer system dependability research.

8.7.30 Judith A. Resnik Award

The IEEE Judith A. Resnik Award was established in 1986 and is awarded for outstanding contributions to space engineering, within the fields of interest of the IEEE. The award is jointly sponsored by the IEEE Aerospace and Electronic Systems, Control Systems, and Engineering in Medicine and Biology Societies. The award was discontinued in June 2013.

1994 *Johannes Dietrich*, Germany Section – For development of a successful high-performance, rugged, multi-sensor, miniaturized robotic gripper for use in the outer space environment.

1995 *Leandre Pourcelot*, France Section – For application of ultrasound imaging to the measurement of cardiovascular systems during space flight.

8.7.31 Robotics and Automation Award

The IEEE Robotics & Automation Award was established in 2002 and awarded for outstanding contributions to robotics and automation. The award is sponsored by the IEEE Robotics and Automation Society.

2007 *Gerd Hirzinger*, Germany Section – For contributions in robot mechatronics, telerobotics, man-machine interface research, and space robotics.

2016 *Raffaello D’Andrea*, Switzerland Section – For pioneering contributions to design and implementation of distributed, cooperative robotics and automation systems for commercial applications.

2022 *Wolfram Burgard*, Germany Section – For contributions to the fundamentals and applications of robot navigation and perception.

2024 *Paolo Dario*, Italy Section – For establishing and advancing bionics and biorobotics as key research areas worldwide, integrating robotics and medicine.

8.7.32 Frank Rosenblatt Award

The IEEE Frank Rosenblatt Award was established in 2004 and awarded for outstanding contributions to the advancement of the design, practice, techniques, or theory in biologically and linguistically motivated computational paradigms, including but not limited to neural networks, connectionist systems, evolutionary computation, fuzzy systems, and hybrid intelligent systems in which these paradigms are contained. The Awards is sponsored by the IEEE Computational Intelligence Society.

2008 *Teuvo Kohonen*, Finland Section – For outstanding contributions to the advancement of the theory and applications of neural networks, associative memories and the self-organizing map.

2011 *Hans-Paul Schwefel*, Germany Section – For pioneering contributions to evolutionary computation through the theory and application of evolution strategies.

2015 *Marco Dorigo*, Benelux Section – For contributions to the foundations of swarm intelligence.

2019 *Erkki Oja*, Finland Section – For contributions to neural networks and unsupervised learning.

2023 *Marios Polycarpou*, Cyprus Section – For contributions to the theory and application of neural networks and learning systems in monitoring and control.

2024 *Bernadette Bouchon-Meunier*, France Section – For contributions to the foundations and applications of approximate reasoning and fuzzy systems.

8.7.33 David Sarnoff Award

The IEEE David Sarnoff Award was established in 1959 and is presented for exceptional contributions to electronics. The Award is sponsored by SRI International.

1974 *Frederik L.J. Sangster*, Benelux Section – For the invention of the integrated bucket-brigade delay line and ingenuity in finding new realizations and applications of this principle.

- 1981** *Cyril Hilsum*, UK and Ireland Section – For contributions in the fields of III-V compound semiconductors, solid state microwave components and display devices.
- 1984** *Jameson D. Rigden*, UK and Ireland Section, and *Alan D. White* – For invention of the visible light helium-neon laser.
- 2005** *Pierre Tournois*, France Section – For pioneering contributions to pulse compression devices and the invention of the Acousto-Optic Programmable Dispersive Filter.

8.7.34 Marie Sklodowska-Curie Award

The IEEE Marie Sklodowska-Curie Award was established in 2008 and is presented for outstanding contributions to the field of nuclear and plasma sciences and engineering. The first presentation is scheduled for 2011. The award is sponsored by the IEEE Nuclear and Plasma Sciences Society.

- 2012** *Gennady Andreevich Mesyats*, Russia Section – For founding the field of nanosecond pulsed power and for seminal contributions to the physics of vacuum breakdown at high power levels.
- 2014** *Brian F. Hutton*, UK and Ireland Section, *Malcolm Hudson* and *Lawrence A. Shepp* – For developing maximum-likelihood image reconstruction in emission tomography leading to its widespread and effective use in healthcare.
- 2021** *Michel Defrise*, Benelux Section – For key developments in image reconstruction for positron emission tomography and x-ray computed tomography.

8.7.35 Donald O. Pederson Award in Solid-State Circuits

The IEEE Solid-State Circuits Award was established in 1987 and is presented for outstanding contributions to solid-state circuits. The award was renamed in 2005 in honor of Donald O. Pederson. The Award is sponsored by the IEEE Solid-State Circuits Society.

- 1996** *Rudy J. Van De Plassche*, Benelux Section – For pioneering contributions to the design of integrated circuits for data conversion.
- 2004** *Eric A. Vittoz*, Switzerland Section – For pioneering contributions to low-power device modeling and CMOS circuit design.
- 2007** *Hugo De Man*, Benelux Section – For leadership in integrated circuit design and design methodology.
- 2011** *Willy Sansen*, Benelux Section – For leadership in analog integrated circuit design.
- 2020** *Klaas Bult*, Benelux Section – For leadership in embedded analog and mixed-signal integrated circuits.
- 2023** *Ingrid Verbauwhede*, Benelux Section – For pioneering contributions to energyefficient and high-performance secure integrated circuits and systems.

8.7.36 Innovation in Societal Infrastructure Award

The IEEE Innovation in Societal Infrastructure Award was established in 2011 and is presented for significant technological achievements and contributions to the establishment, development, and proliferation of innovative societal infrastructure systems through the application of information technology with an emphasis on distributed computing systems.

- 2017** *Antonello Monti*, Germany Section – For accelerating innovation of energy, information, and communication technologies for the urban environment.
- 2024** *Elena Ferrari*, Italy Section – For pioneering and sustained contributions to the security and privacy of online social networks.

8.7.37 Charles Proteus Steinmetz Award

The IEEE Charles Proteus Steinmetz Award was established in 1979 and is presented for exceptional contributions to the development and/or advancement of standards in electrical and electronics engineering. The Award is sponsored by the IEEE Standards Association.

- 1983** *William A. McAdams*, Switzerland Section – For outstanding leadership in national and international electrical and electronic standardization activities.
- 2007** *Vic Hayes*, Benelux Section – For outstanding leadership in the development and global acceptance of IEEE 802.11 wireless local area network standards.
- 2016** *Hermann Koch*, Germany Section – For leadership in and contributions to the development, standardization, and global impact of gas-insulating technology for substations (GIS) and high-voltage lines (GIL).
- 2017** *David John Law*, UK and Ireland Section – For leadership of and contributions to the development of IEEE Standards with global impact, particularly 802.3 Ethernet Standards.

8.7.38 Eric E. Sumner Award

The IEEE Eric E. Sumner Award was established in 1995 and is presented for outstanding contributions to communications technology. The Award is sponsored by Alcatel-Lucent Bell Labs.

- 1997** *Jean-Pierre Coudreuse*, France Section – For fundamental contributions to broadband communications by Asynchronous Transfer Mode (ATM).
- 2002** *John Midwinter*, UK and Ireland Section, and *Tsuneo Nakahara* – For pioneering contributions to the physical understanding, manufacture, and deployment of optical fiber communications systems.
- 2003** *Werner Bux* and *Hans R. Mueller*, Switzerland Section – For contributions to the design, development and standardization of the token-ring local area network.
- 2007** *Amin Shokrollahi*, Switzerland Section, and *Michael G. Luby* – For bridging mathematics, internet design and mobile broadcasting as well as successful standardization.
- 2013** *Siavash Alamouti*, UK and Ireland Section, *Vahid Tarokh* and *Hamid Jafarkhani* – For contributions to block signaling for multiple antennas.
- 2022** *Lajos Hanzo*, UK and Ireland Section – For seminal contributions to adaptive wireless communications.
- 2024** *Geoffrey Ye Li*, UK and Ireland Section, and *Stephen B. Weinstein* and *Leonard J. Cimini, Jr.* – For fundamental contributions to frequency domain communications including orthogonal frequency division multiplexing.

8.7.39 Leon K. Kirchmayer Graduate Teaching Award

The IEEE Leon K. Kirchmayer Graduate Teaching Award was established in 1990 and is awarded for inspirational teaching of graduate students in the IEEE fields of interest. The award was renamed in 2002 in honor of Leon K. Kirchmayer. The Award is sponsored by the Leon K. Kirchmayer Memorial Fund.

- 1993** *Rudolf Saal*, Germany Section – For inspired teaching, concerned guidance, and research supervision of electrical engineering graduate students.
- 2012** *Anthony G. Constantinides*, UK and Ireland Section – For educating, inspiring and mentoring generations of graduate students in digital signal processing and communications throughout the world.
- 2023** *Rüdiger Urbanke*, Switzerland Section – For contributions to graduate education, empowering students and mentorship that advanced the world of wireless and engineering communication.

8.7.40 Undergraduate Teaching Award

The IEEE Undergraduate Teaching Award was established in 1990 and is presented for inspirational teaching of undergraduate students in the field of interest of IEEE. The Award is sponsored by the IEEE Education Society.

No recipients in Region 8.

8.7.41 Nikola Tesla Award

The IEEE Nikola Tesla Award was established in 1975 and is presented for outstanding contributions to the generation and utilization of electric power. The Award is sponsored by The Grainger Foundation and the IEEE Power and Energy Society.

- 1986** *Eric R. Laithwaite*, UK and Ireland Section – For contributions to the development and understanding of electric machines and especially of the linear induction motor.
- 1989** *Dietrich R. Lambrecht*, Germany Section – For leadership and contributions to advances in large turbine generator design, construction, and application.
- 1991** *Michel E. Poloujadoff*, France Section – For contributions to the theory of electrical machinery and its application to linear induction motors.
- 1996** *John A. Tegopoulos*, Greece Section – For pioneering contributions in electrical machine design.
- 2001** *Stephen Williamson*, UK and Ireland Section – For the development of advanced mathematical models and computational tools for induction machine design.
- 2006** *Konrad Reichert*, Switzerland Section – For contributions to the development of numerical methods and computer analysis and simulation of electrical machines and devices.
- 2008** *Timothy J.E. Miller*, UK and Ireland Section – For outstanding contributions to the advancement of computer-based design and analysis of electric machines and their industrial dissemination.
- 2015** *Ion Gheorghe Boldea*, Romania Section – For contributions to the design and control of rotating and linear electric machines for industry applications.
- 2017** *Adel Razek*, France Section – For contributions to coupled multiphysics modeling and design of electromagnetic systems.
- 2021** *Zi-Qiang Zhu*, UK and Ireland Section – For contributions to the design, modeling, control, and application of ac permanent magnet machines and drives.
- 2024** *Aldo Boglietti*, Italy Section – For contributions to the magnetic and thermal modeling, design, and characterization of electrical machines.

8.7.42 Kiyoo Tomiyasu Award

The IEEE Kiyoo Tomiyasu Award was established in 2000 and is awarded for outstanding early to mid-career contributions to technologies holding the promise of innovative applications. The Award is sponsored by the Kiyoo Tomiyasu Fund, KDDI R&D Laboratories, IEEE Geoscience and Remote Sensing and Microwave Theory and Techniques Societies.

- 2007** *Alberto Moreira*, Germany Section – For development of synthetic aperture radar concepts.
- 2016** *Yonina Eldar*, Israel Section – For development of the theory and implementation of sub-Nyquist sampling with applications to radar, communications, and ultrasound.
- 2023** *Tim Boescke*, Germany Section – For contributions to the discovery of ferroelectricity in hafnium-based oxides.
- 2024** *Davide Scaramuzza*, Switzerland Section – For contributions to agile visual navigation of micro drones and low-latency robust perception with event cameras.

8.7.43 Vladimir K. Zworykin Award

The IEEE Vladimir K. Zworykin Award was presented for outstanding technical contributions in the field of electronic television. The award was discontinued in 1986.

- 1972** *Robin E. Davies*, UK and Ireland Section – For his development of the field-store standards converter which permits US colour television (NTSC) signals and those from the European (PAL) system to be exchanged directly.
- 1980** *Walter Bruch*, Germany Section – For the development of the Phase Alternating Line (PAL) color television system.

8.7.44 Transportation Technologies Award

The IEEE Transportation Technologies Award was established in 2011.

- 2020** *Markos Papageorgiou*, Greece Section – For contributions to traffic flow modelling and operations.
- 2023** *Holger Meinel*, Germany Section – For contributions to the development and promoting the application of millimeter-wave technology in transportation systems.

8.7.45 Lotfi A. Zadeh Award for Emerging Technologies

The IEEE Daniel E. Noble Award for Emerging Technologies has been renamed in honor of the late Lotfi Zadeh. Beginning in 2022, the award has been named the Lotfi A. Zadeh Award for Emerging Technologies. Prof. Zadeh was known as the “father of fuzzy logic.” Previously known as the Morris N. Liebmann Memorial Award, this award was established in 1919 to recognize outstanding contributions to emerging technologies.

2024 *Andras Kis*, Switzerland Section – For pioneering work and breakthroughs on 2D materials and electronic devices.

8.8 Presidents' Change the World Competition

The IEEE Presidents' Change the World Competition recognizes and rewards students who identify a real-world problem and apply engineering, science, computing, and leadership skills to solve it. The contest offers students the perfect opportunity to have their ingenuity and enthusiasm for engineering and technology recognized by prestigious IEEE members around the globe.

2010 1st Prize: *e.quinox*

Imperial College London (UK), UK and Ireland Section – Mohammad Mansoor Hamayun, Manuel Tragut, Alexander McLaren, Alexander Rybka, Christopher Baker-Brian, Matthew Dayton, Ndubuisi Kejeh, Thomas Luth, Christopher Hopper, Hemal Mehta, Laurent Van Houke, Varun Sharma.

2012 1st Prize: *Clean water: Transforming a natural disaster into a natural resource*

University of Oxford (UK), UK and Ireland Section – Stephen Honan, Kevin Baum, Sarah Yazouri.

2013 2nd Prize: *Integrated biomedical health-monitoring system for senior citizens*

University of Leuven (Belgium), Benelux Section – Ping Jack Soh, Marco Mercuri.

3rd Prize: *FabLab*

University of Nairobi (Kenya), Kenya Section – Roy Ombatti, Juliet Wanyiri.

8.9 Member and Geographic Activities Board Awards

8.9.1 Outstanding Section Award

To recognize the excellent work of a large, medium, and small Section in the past year.

Citation: “For successful efforts in fulfilling the educational and scientific goals of IEEE for the benefit of the public by maintaining, enhancing, and supporting the Student Branches, Technical Chapters, and Affinity Groups within their geographic boundaries.”

2014 *Croatia Section* – Outstanding Medium Section.

2017 *Tunisia Section* – Outstanding Large Section.

2018 *Cyprus Section* – Outstanding Small Section.

2019 *Kenya Section* – Outstanding Small Section.

2019 *South Africa Section* – Outstanding Medium Section.

2021 *Oman Section* – Outstanding Small Section.

2023 *Italy Section* – Outstanding Large Section.

8.9.2 Larry K. Wilson Transnational Award

To recognize the accomplishment judged to be the most significant and effective in fulfilling one or more of the transnational goals and objectives of Member and Geographic Activities as related to transnational activities. This award is made in memory of Dr. Larry K. Wilson. (One award annually.)

1983 *Walther E. Proebster*, Germany Section – For significant extension of activities in Region 8 and for dedicated effort leading to the formation of the IEEE Kenya Section and AFRICON'83.

- 1987** *Jacob Baal-Schem*, Israel Section – For initiation, guidance and enhancement of the MELECON Series of Conferences.
- 1989** *Gordon H. (Mick) Byford*, UK and Ireland Section – For creative innovation in the editing, production, and management of the Region 8 News, thus improving communication and member service in Region 8.
- 1991** *Robert C. Winton*, UK and Ireland Section – For continuing and exemplary efforts in providing a transnational dimension to numerous IEEE activities and for unique contributions to the SC '90 program.
- 2000** *Maurice Papo*, France Section – For significant contributions in making the IEEE an effective global organization.
- 2002** *Rolf Remshardt*, Germany Section – For exemplary contributions in bringing the benefits of IEEE members and colleagues throughout Europe and for effective fiscal and financial leadership within IEEE Region 8.
- 2004** *Hans J. Schmitt*, Germany Section – For exemplary contributions in providing fiscal and financial leadership to the geographic units within Africa, Europe, Greenland, Iceland, the Republics of the former USSR, and the Near and Middle East.
- 2005** *Elya B. Joffe*, Israel Section – For outstanding contribution to enhancement of the transnational character of IEEE through promotion of conferences, membership and chapter development on a regional and global basis.
- 2007** *Gerhard Hancke*, South Africa Section – For inspiring membership development and services as a member of several regional and technical conferences worldwide.
- 2009** *Martin J. Bastiaans*, Benelux Section – For significant contributions to the IEEE volunteer experience and member engagement throughout the world.
- 2011** *Roland Saam*, UK and Ireland Section – For exemplary service and significant contributions over many years, particularly developing and maintaining the distinctive IEEE Region 8 News, which fosters collaboration and engagement across three continents.
- 2018** *Josip Balen*, Croatia Section – For pioneering, championing, and leading IEEEmadC, a global project with transnational impact.

8.9.3 Innovation Award

To recognize an individual or a team whose accomplishment/project is judged to be the most innovative and effective in fulfilling one or more of the goals and objectives of Member and Geographic Activities. (One award annually.)

- 1988** *B.J. Cory*, UK and Ireland Section – For creative leadership in the planning and implementation of the United Kingdom and Republic of Ireland Section Forum on Safety and Engineering Systems.
- 2009** *Marko Delimar*, Croatia Section, and *Ricardo Varela Iglesias*, UK and Ireland Section – For the creation, development, and implementation of the IEEEExtreme Programming Contest.
- 2017** *Bahrain, Croatia, Iran, UK and Ireland Sections* – For championing and implementing a worldwide mobile application development contest to encourage member and industry engagement.

8.9.4 Leadership Award

To recognize those individuals who have exhibited exemplary and substantive leadership of an extraordinary nature in implementing activities which support the goals and objectives of Member and Geographic Activities (MGA) at the local, regional, national, and/or international level. (Up to 3 awards annually.)

- 1999** *Basil W. Osborne*, UK and Ireland Section – For contributions to the successful and smooth functioning of the Region 8 Committee in the period 1985–1999.
- 2001** *Gözde Bozdagi Akar*, Turkiye Section – For stimulating and excellent leadership in Student Activities in the IEEE Turkiye Section, IEEE Region 8 and RAB Student Activities initiatives.
- 2002** *Engy Mohamed Samir Foda*, Egypt Section – For exemplary efforts in organizing successful 2002 IEEE Region 8 Student Branch and GOLD Congresses.
- 2002** *Margaretha Eriksson*, Sweden Section – For stimulating and promoting the formation of technical chapters and promoting the value of the IEEE membership at regional conferences within IEEE Region 8.

- 2010** *Aleksandar Szabo*, Croatia Section – For his significant contributions in empowering IEEE member involvement and development in the IEEE Croatia Section and throughout Region 8.
- 2013** *Victor Fouad-Hanna*, France Section – For distinguished leadership and outstanding contributions to IEEE and MGA operating units at all levels, improving relationships with and between IEEE members.
- 2017** *Hossam Ali*, Egypt Section – For distinguished leadership in promoting IEEE Day and other activities to encourage member engagement worldwide.
- 2017** *Daniel Pasquet*, France Section – For distinguished leadership at the local and regional levels towards furthering MGA's goals.
- 2019** *Humphrey M. Muhindi*, Kenya Section – For distinguished leadership and contributions in promoting IEEE activities for the benefit of the Kenya Section.

8.9.5 Achievement Award

To recognize individuals or a team involved with Member and Geographic Activities and/or the Regional network for singular achievement in the development and completion of a project(s) or activity(ies) directed to the fulfillment of one or more of the goals and objectives of Member and Geographic Activities. This award is designed to recognize those substantive projects or achievements of a relatively short nature (one to three years), but which have left an undeniable imprint on the fabric of Regional operations. (Up to 6 awards annually.)

- 1998** *Zbigniew Ciok*, Poland Section – For outstanding service as Section Chairman which accelerated the development of the IEEE in Poland and Eastern Europe.
- 1998** *Zbigniew H. Czyz*, Poland Section – For exemplary service to the IEEE Poland Section.
- 2001** *Jaafar M. Al-Ibrahim*, Saudi Arabia (East) Section – For outstanding efforts in facilitating the formation of several new sections and the rejuvenation of inactive sections in Region 8.
- 2001** *Ali Aydogan*, Turkiye Section – For their outstanding achievement in promoting and fostering growth of IEEE membership among students in Turkiye.
- 2001** *Duncan C. Baker*, South Africa Section – In recognition of outstanding effort and success in editing and producing of the Region 8 News.
- 2001** *Henrich Lantsberg*, Russia Section – In recognition of dedicated and longstanding service to the work of IEEE Region 8 and the Russia Section.
- 2002** *Isaac Adeyemi Adekanye*, Nigeria Section – For outstanding efforts in facilitating the rejuvenation of the IEEE Nigeria Section and the promotion of IEEE Senior Membership.
- 2003** *Nabil K. Al-Dabal*, Saudi Arabia (East) Section – In recognition of his outstanding efforts in successfully organizing the inaugural IEEE-Gulf Cooperation Council Electrical and Electronics Conference.
- 2006** *Gerald Anleitner*, Germany Section – For exemplary leadership skills in IEEE GOLD activities and the creation of the GOLD-Society Pilot Program.
- 2006** *Marko Delimar*, Croatia Section – For significant contributions and energetic leadership to encourage IEEE Student activities and participation.
- 2006** *Rolf Remshardt*, Germany Section – For outstanding strategic contributions towards establishing and nurturing the young professional community within Region 8 and throughout IEEE.
- 2008** *Ahmed Osama Mikkawi*, Egypt Section – For his outstanding efforts in the GOLD and Women in Engineering programs for fostering inspiration among IEEE members.
- 2013** *Christopher James*, UK and Ireland Section – For extraordinary contributions in promoting professional and career development for IEEE student and young professional members, both nationally and internationally.
- 2014** *Simay Akar*, Turkiye Section – For engaging members around the world through participation and communication, initiating, motivating, and coordinating events and efforts to celebrate IEEE Day.
- 2016** *IEEE Region 8 Action for Industry Committee* – For planning and implementing the Action for Industry Initiative, which has successfully increased member engagement and strengthened the relationship with industry in Region 8.
- 2016** *Nasim Farahini*, Sweden Section – For outstanding contributions in promoting student activities, and for establishing and reinforcing the network of women engineers in the IEEE Sweden Section.
- 2018** *Alaa Khamis*, Egypt Section – For outstanding contributions to IEEE goals through chapter activities.

- 2018** *Eva Esther Shalin*, Ghana Section – For outstanding contributions to section formation and development.
- 2019** *Carl James Debono*, Malta Section – For outstanding leadership and dedication in enhancing conferences and technical activities in Region 8.
- 2020** *Albert Lysko*, South Africa Section – For dedication and exemplary leadership in promoting, strengthening and proactively supporting IEEE activities and volunteerism at the local and global levels.

8.9.6 Young Professionals (GOLD) Achievement Award

This award is designed to recognize those substantive projects or achievements of a relatively short nature (one to three years) but which have left an undeniable imprint on the fabric of IEEE Young Professionals (Graduates of the Last Decade – GOLD) operations. The award will be based on a selection that recognizes individuals, or a team (maximum two teams per year), involved with Young Professionals (GOLD) activities who are recognized for singular achievement in the development and completion of a project(s) or activity(ies) which are directed to the fulfillment of one or more of the Young Professionals goals and/or objectives. The individuals/teams nominated must be IEEE Young Professionals at the time of nomination. (Up to 6 awards annually.)

- 2000** *IEEE Nigeria Section Gold Committee* – For revitalizing the IEEE Nigeria Section through exceptional GOLD Activities.
- 2005** *Saurabh Sinha*, South Africa Section – For significant contributions and leadership in the South Africa GOLD activities, for providing pre-college education exposure to high school students, involvement in conference organization activities and GOLD activities on the Region level.
- 2006** *Mohamed Aboud*, Egypt Section – For exemplary achievements, significant contributions and leadership in the Egypt Section GOLD activities.
- 2007** *Tom Curtis*, Tanzania Subsection – For his dedication and enthusiasm to share his technical knowledge through the education of young students in Tanzania.
- 2007** *Verona Wong*, UK and Ireland Section – For outstanding contributions and dedication towards membership retention by establishing GOLD activities, and exemplary leadership in the GOLD 10th Anniversary Project.
- 2008** *Adrian Pais*, Benelux Section – For extraordinary leadership and valuable contributions to the development of the IEEE GOLDRush newsletter.
- 2009** *George Gordon*, UK and Ireland Section – For exceptional leadership and outstanding contributions to the development of the IEEE GOLDRush Newsletter.
- 2009** *João Figueiras*, Portugal Section – For outstanding contributions to the public visibility of IEEE by creating the “GOLD Around the World” video.
- 2009** *Lisa Lazareck*, UK and Ireland Section – For outstanding success in increasing GOLD activities within the IEEE EMB Society.
- 2010** *Nana Ampofo-Anti*, South Africa Section – For his dedicated efforts toward the success of IEEE EPICS-High Projects that have fostered IEEE member engagement through service to the community.
- 2010** *Salima Kaissi*, France Section – For her outstanding contributions to public visibility of IEEE by creating and implementing the idea of establishing a global IEEE Day.
- 2011** *David Oyedokun*, South Africa Section – For inspirational leadership towards successful IEEE EPICS-High Projects, fostering member engagement, and empowering the community.
- 2012** *Amir Zahoor*, Sweden Section – For inspirational leadership and outstanding contributions to IEEE GOLD activities, boosting member engagement, and motivating and training volunteers.
- 2015** *Rafal Sliz*, Finland Section – For outstanding volunteer development and member-focused contributions to the IEEE Finland Section, Region 8, and IEEE Young Professionals.
- 2017** *Simay Akar*, Turkiye Section and Nanjing Section – For outstanding contributions to the IEEE Women in Engineering, Young Professionals and Humanitarian Technology activities.
- 2017** *Flavia Dinca*, Sweden Section – For outstanding contributions in strategic planning of IEEE Young Professionals programs.
- 2017** *Sohaib Qamar Sheikh*, UK and Ireland Section – For exemplary leadership and contributions to IEEE Young Professionals activities.

- 2019** *Abdullateef Aliyu*, Nigeria Section – For outstanding contributions in organizing the first African Students and Young Professionals Congress and promoting IEEE activities in the Nigeria Section.
- 2020** *Shashank Gaur*, Portugal Section – For continuous hard work and dedication in making IEEE a better place for young engineers.
- 2020** *Saeed Hussain Ali Al Mansoori*, United Arab Emirates Section – For outstanding contributions to the Young Professionals and IEEE Geoscience and Remote Sensing Society activities in the United Arab Emirates Section and Region 8.
- 2020** *Weizhi Meng*, Denmark Section – For outstanding contributions in the formation of an IEEE Young Professional Affinity Group, and leading activities in Denmark and Region 8.
- 2022** *Omer Melih Gul*, Turkiye Section – For exemplary leadership and outstanding contributions in promoting and initiating IEEE Young Professional activities in IEEE Computer Society, Region 8 and the Turkiye Section.

8.9.7 IEEE GOLD / Young Professionals Affinity Group Hall of Fame Award

- 2011** Finland Section Affinity Group, Chair: Rafal Sliz
- 2012** Egypt Section Affinity Group, Chair: Mohamed Raafat
- 2013** Tunisia Section Affinity Group, Chair: Habib M. Kammoun
- 2014** Croatia Section Affinity Group, Chair: Tomislav Pokrajčić – For their outstanding achievements Inspiring, Energizing, Empowering, and Engaging graduate students and young professionals in 2013.
- 2016** Egypt Section Affinity Group, Chair: Mohamed El-Dallal
- 2017** Jordan Section Affinity Group, Chair: Mustafa Hassan AlMamani
- 2018** Poland Section Affinity Group, Chair: Piotr Graca

8.9.8 Supporting/Sustaining Friend of IEEE Member and Geographic Activities Awards

To specifically recognize support provided to IEEE and its members, in support of its goals, by firms, divisions of firms, or individuals.

- 2000** *Eastern Mediterranean University* – For active support towards the advancement of IEEE and engineering professions.
- 2003** *Alcatel Bell Telephone, Antwerp, Belgium* – For more than 15 years of generous hospitality given to the IEEE Benelux Section.
- 2004** *Alcatel Bell Telephone, Antwerp, Belgium* – For more than 19 years of generous hospitality and service given to the IEEE Benelux Section. (Sustaining Friend)
- 2004** *Dubai Airport Free Zone Authority (DAFZA), United Arab Emirates* – In appreciation of their efforts to encourage IEEE activities and sponsor IEEE events in United Arab Emirates.
- 2006** *Cape Peninsula University of Technology, Cape Town, South Africa* – For outstanding and continued support of the activities of the IEEE South Africa Section to the benefit of the Southern African community.
- 2006** *University of Pretoria, Pretoria, South Africa* – For outstanding and continued support of the activities of the IEEE South Africa Section to the benefit of the Southern African community.
- 2006** *University of Stellenbosch, Stellenbosch, South Africa* – For outstanding and continued support of the activities of the IEEE South Africa Section to the benefit of the Southern African community.
- 2008** *Saudi Council of Engineers, Riyadh, Saudi Arabia* – For providing its meeting facilities and other resources for IEEE Western Saudi Arabia Section meetings and functions, and providing support to the Section in organizing and conducting joint training courses.
- 2019** *King Abdulaziz University, Jeddah, Saudi Arabia* – In appreciation of continued support of IEEE activities in the Kingdom of Saudi Arabia and of hosting and supporting numerous IEEE events.
- 2020** *Taif University, Taif, Saudi Arabia* – For supporting local IEEE activities including conferences and joint events.
- 2021** *College of Information Technology, University of Bahrain* – For outstanding contributions in promoting the IEEE Bahrain Section, and technically sponsoring and hosting IEEE events.

8.9.9 Diversity & Inclusion Award

This award is to recognize individuals, or teams, who have exhibited exemplary and substantive diversity and inclusion of an extraordinary nature in implementing activities/projects that support the goals of Member and Geographic Activities (MGA) at the local, regional, national and/or international level.

- 2022** *Simay Akar*, Turkiye Section – For inspiring contributions and accomplishments for IEEE Organizational Units by promoting diversity and inclusion, engaging and recognizing volunteers worldwide.
- 2022** *Sally Livoyi Musonye*, Kenya Section – For exemplary leadership promoting and strengthening diversity and inclusion in IEEE activities at the local and global levels.

8.10 Educational Activities Board Awards

IEEE Educational Activities Board Awards recognize and honor individuals and companies for major contributions to engineering and technical education.

8.10.1 Meritorious Achievement in Accreditation Activities

Recognizes IEEE members for efforts to foster the maintenance and improvement of education through the process of accreditation of engineering, engineering technology, computer science programs, and applied science programs.

- 2011** *Roderick Arthur Harker*, South Africa Section – For accreditation activities in South African education and impacting accreditation activities worldwide.

8.10.2 Meritorious Achievement in Continuing Education

Recognizes IEEE members for the dedicated contribution to the design, delivery, and support of continuing education courses and programs in the fields of interest to IEEE members.

- 2008** *Kurt Richter*, Austria Section – For outstanding contributions, as a teacher and organizer, to continuing education services for IEEE members in countries of Region 8.
- 2012** *Margaretha Eriksson*, Sweden Section – For exceptional leadership in organizing and delivering practical leadership and management training to young entrepreneurs, IEEE students and Graduates of the Last Decade.
- 2017** *Cristina Olaverri-Monreal*, Austria Section – For designing and implementing innovative courses and programs in the field of intelligent transportation systems.

8.10.3 Meritorious Achievement in Informal Education

Recognizes IEEE members who volunteer in informal education settings for the benefit of teachers, students, parents of students, and the public. These volunteers will have served in advisory, educational or fiduciary positions and used their professional background to enhance understanding and involvement in fields of interest of IEEE by users of the informal education system.

- 2009** *Nicolaas Beute*, South Africa Section – For exceptional leadership in pioneering, organizing and managing the IEEE Teacher-in-Service Program in South Africa.

8.10.4 (Meritorious Achievement Award in) Pre-University Education

Recognizes current pre-university classroom teachers who have inspired an appreciation and understanding of mathematics, science and technology, and the engineering process in students and have encouraged students to pursue technical careers.

- 2002** *Christine Wutte*, Austria Section (Pre-College Educator Award) – For teaching physics and mathematics for 33 years in the Gymnasium und ORG der Ursulinen Graz and for inspiring young women students to pursue scientific and engineering careers.
- 2009** *Helena Jeanetta Coetzee*, South Africa Section – For creating opportunities for the engagement of South African pre-university students in science and engineering projects nationally and internationally.
- 2011** *Donovan Duffield*, South Africa Section – For inspiring students in South Africa and instilling their passion for science and technology.
- 2012** *Sérgio Ramos*, Portugal Section – For promoting the active involvement of students in science, technology and engineering, and motivating them to pursue technical careers.
- 2013** *Jerina Angeline Chunga*, South Africa Section – For decades of passionate teaching experience and positive impact made on lives of young children, inspiring them with creative thinking and instilling in them a strong sense of self belief.
- 2017** *Ezaldeen Jamel Abd Alhalem Najjar*, Jordan Section – For leadership in the promotion and understanding of science, technology, engineering and mathematics (STEM) education in Jordan.
- 2019** *Nizar Rokbani*, Tunisia Section – For significantly increasing the impact of the IEEE Teacher in-Service Program (TISP) in Tunisia through the Robotics for Democracy Program.

8.10.5 Major Education(al) Innovation

Recognizes IEEE members who have distinguished themselves for outstanding educational innovation in a field of interest of the IEEE.

- 1994** *Claude J. M. Gueguen* and *Bernard Robinet*, France Section, and *Jacques Neiryneck*, Switzerland Section – For work leading to the creation of the Institut Eurecom.
- 2007** *Jan Van der Spiegel*, Benelux Section – For innovative efforts in promoting undergraduate research and creating robust opportunities for undergraduate students to enrich their education through integrative research experiences.

8.10.6 Meritorious Service to IEEE EAB

Recognizes IEEE members who are past members of the EAB or current or past members of EAB Committees (other than currently serving on ARC) for outstanding and sustained service to the aims and objectives of the IEEE Educational Activities Board.

- 2012** *Saurabh Sinha*, South Africa Section – For spearheading the incorporation of the Engineering Projects in Community Service program in IEEE's educational activities and expanding the program globally.
- 2018** *Tariq Durrani*, UK and Ireland Section – For sustained contributions and leadership to IEEE EAB by promoting and advancing education programs globally at the pre-university, university and professional levels.

8.10.7 Employer Professional Development

Recognizes organizations employing IEEE members for contributions to employee continuing education and professional development.

- 1998** *Turk Elektrik*, Turkiye Section – For outstanding contributions to employee continuing education and professional development.
- 2003** *Saudi Aramco*, Saudi Arabia (East) Section – For outstanding contributions to employee continuing education and professional development through effective integration of diverse technologies to meet the need of rapid modernization of engineering technologies.

8.10.8 Section Professional Development

Recognizes an IEEE section for major contributions to the professional development of its members through the provision of outstanding products, services and support in the areas of life-long learning, continuing education and professional development.

2011 *IEEE South Africa Section* – For supporting the professional development of its members by creating a customized IEEE continuing education portal, organizing major IEEE technical conferences, and utilizing IEEE’s Distinguished Lecturer Program.

8.10.9 EAB Vice President’s Recognition Award

2010 *Simon Haykin, UK and Ireland Section* – For fundamental contributions to research and education in Adaptive Signal Processing and Learning Systems, applications in radars and communications techniques, and worldwide impact on education and training of electronics engineers.

2012 *Yves Meyer, France Section* – For fundamental contributions to wavelets including the foundations for a proper mathematical framework and for influencing generations of students and researchers.

8.11 Joint Awards Established with National Societies

The purpose of National Society Agreements is to encourage cooperation, and coordinated joint activities between the country’s National Society, and the local countries’ IEEE section. One of the cooperative activities has been the establishment of joint awards between the National Society and IEEE.

8.11.1 France – SEE/IEEE Joint Brillouin-Glavieux Award

The SEE/IEEE Joint Brillouin-Glavieux Award was established in 2007 and is presented annually. The Brillouin-Glavieux Award has been created to promote the interaction between fundamental research, advanced education and effective transfer to industry in the area of technology. In even years the Brillouin award is given in the area of physics, optics and electricity; in odd years, the Glavieux award recognizes excellence in ICT, control theory, signal and image processing and related domains.

SEE = Société de l’Electricité, de l’Electronique, et des Technologies de l’Information et de la Communication

2008 *Sébastien Bigo, SEE/IEEE Léon-Nicolas Brillouin Award recipient* – For the development of multiple Tbit/sec transmissions over several thousand kilometers of optical fibers.

2009 *Catherine Douillard, SEE/IEEE Alain Glavieux Award recipient* – For pioneering work on turbo-equalization and exceptional contribution to standards, opening to a large development of consumer graphics.

2010 *Mickael Tanter, SEE/IEEE Léon-Nicolas Brillouin Award recipient* – For his outstanding achievements in acoustics and their impact in health care.

2011 *Merouane Debbah, SEE/IEEE Alain Glavieux Award recipient* – For outstanding achievements in Information Theory and their impact on wireless communications.

2012 *Lucian Prejbeanu, SEE/IEEE Léon-Nicolas Brillouin Award recipient* – For outstanding achievements in the development of thermally-assisted magnetic memories (MRAM), from basic concepts to industrialization.

2013 *Jean-Christophe Baillie, SEE/IEEE Alain Glavieux Award recipient* – For the design of an operating system for autonomous robots and its wide application in the industry and the digital society.

2014 *Sylvain Girard, SEE/IEEE Léon-Nicolas Brillouin Award recipient* – For the design of radiation-tolerant optical fibers and sensors and its application in the nuclear and satellite industries.

2015 *Silvère Bonnabel, SEE/IEEE Alain Glavieux Award recipient* – For the development of remarkable mathematical abstractions for the design of automatic control systems and their implementation to navigation and guidance in various industrial applications.

2016 *Etienne Perret, SEE/IEEE Léon-Nicolas Brillouin Award recipient* – For his outstanding achievement in the identification of an object in an unknown environment using a chipless label or tag.

- 2017** *Marco Di Renzo*, SEE/IEEE Alain Glavieux Award recipient – For outstanding results in developing several mathematical abstractions (for mobile network modeling), innovating ideas, as well as demonstrating their usefulness in future wireless communications systems.
- 2018** *François Andrieu*, SEE/IEEE Léon-Nicolas Brillouin Award recipient – For contributions to communication, distributed storage, and artificial intelligence.
- 2019** *Jakob Hoydis*, SEE/IEEE Alain Glavieux Award recipient – For outstanding contributions to wireless networks influencing early research up to international standardization of massive MIMO and preparing next-generation wireless networks using deep learning.
- 2020** *Anthony Ghiotto*, SEE/IEEE Léon-Nicolas Brillouin Award recipient – For outstanding contribution to the air-filled substrate integrated waveguide; this key technology has enabled a higher integration of microwave systems that benefits a large number of applications in telecommunication, radar, and millimeter-wave imaging.
- 2021** *Romain Couillet*, SEE/IEEE Alain Glavieux Award recipient – For outstanding contributions to general problems in random matrix theory in signal processing and communications.
- 2022** *Fei Gao*, SEE/IEEE Léon-Nicolas Brillouin Award recipient – For outstanding contributions to the field of electrical systems, particularly fuel cells for transportation and beyond.

8.11.2 Iceland – VFI/IEEE Joint Electrical Engineer of the Year Award

The VFI/IEEE Joint Electrical Engineer of the Year Award was established in 2005 and is presented biennially.

VFI = Verkfræðingafélag Íslands = Association of Chartered Engineers in Iceland

- 2006** *Sigmar Gudbjörnsson* – Iceland Electrical Engineer of 2006.
- 2008** *Árni Benediktsson* – For his excellence in performance in his profession in the field of Electrical Engineering.
- 2008** *Thór Jes Thórisson* – For his significant contributions to the Icelandic Society in the field of Electrical Engineering.
- 2010** *Björgvin Gudmundsson* – For his outstanding and innovative contributions in the design and development of a unique new generation of medical instrumentation for sleep analysis.
- 2013** *Jón Atli Benediktsson* – For outstanding technical achievements and world-wide recognition in the field of remote sensing, and in the research and manufacturing of medical equipment that measures – without invasion – oxygen saturation in the veins of the eye.

8.11.3 South Africa – SAIEE/IEEE Joint Distinguished Volunteer Award

SAIEE/IEEE Joint Distinguished Volunteer Award was established in 2014 and is scheduled to be presented annually. The SAIEE/IEEE Distinguished Volunteer Award promotes the spirit of volunteerism by recognizing a volunteer active in the IEEE, SAIEE or both organizations.

SAIEE = South African Institute of Electrical Engineers

- 2015** *David Bruce Davidson* – For contributions to the international recognition of electromagnetic engineering in South Africa.
- 2017** *Saurabh Sinha* – For distinguished leadership to educational and publication activities at national, regional, and international levels of the IEEE, and for bringing about synergy, through numerous technical activities and conferences, between the IEEE and SAIEE.

8.12 Region 8 Awards

8.12.1 Region 8 (Section) Volunteer Award

The Region 8 Section Volunteer Award was first introduced in 1993, “to be presented to a member of a Regional Section for outstandingly meritorious service to his or her Section.” It was more or less forgotten after 2000 and re-introduced as the Region 8 Volunteer Award in 2008, “with the goal of encouraging all volunteers in the Region and of recognizing those volunteers who have made an outstanding contribution to a particular Region 8 Section.”

- 1994 *Terence H. Oxley*, UK and Ireland Section
 1995 *Wieslaw J. Seruga*, Poland Section
 1996 *Frédérique Vallée*, France Section
 1997 *Henrich Lantsberg*, Russia Section
 1998 ??
 1999 ??
 2000 *Soliman El-Debeiky*, Egypt Section
 ...
 2009 *Jacob Baal-Schem*, Israel Section, and *Hans Noordanus*, Benelux Section
 2010 *Said El-Khamy*, Egypt Section, and *Alexander Mikerov*, Russia (Northwest) Section
 2011 *Vladimir Dimcev*, Republic of Macedonia Section
 2012 *Michel-Henry Carpentier*, France Section
 2013 *Samir Shaheen*, Egypt Section – In recognition of his outstanding services to the Egypt Section.
 2014 *Anikó Szakál*, Hungary Section – In recognition of her outstanding services to the Hungary Section.
 2015 *Adeel Sultan*, United Arab Emirates Section – In recognition of his outstanding services to the United Arab Emirates Section.
 2016 *Nihal Sinnadurai*, United Kingdom and Ireland Section – In recognition of his outstanding services to the United Kingdom and Ireland Section.
 2017 *Ryszard Jachowicz*, Poland Section – In recognition of his outstanding services to the Poland Section.
 2018 *Andrejs Romanovs*, Latvia Section – In recognition of his outstanding services to the Latvia Section.
 2019 *Habib M. Kammoun*, Tunisia Section – In recognition of his outstanding services to the Tunisia Section.
 An honorary mention was presented to *Dirk Rabaey*, Benelux Section, and *Matthew Gream*, UK and Ireland Section, in recognition of their outstanding services to their Sections.
 2020 *Albert Lysko*, South Africa Section.
 2022 *Eduardo S. Audiche*, UK and Ireland Section – For outstanding contributions, dedication and service to his Section and IEEE.
 2023 *Catarina Silva*, Portugal Section – For outstanding contributions, dedication and service to her Section and IEEE.

8.12.2 Region 8 Outstanding Section Award

The Region 8 Outstanding Section Awards are being established with the goal of recognizing excellent performance by Region 8 Sections. Until 2016, two awards were presented annually:

- **one for large Sections** = 501 or more members (including Students)
- **one for small Sections** = 500 or fewer members (including Students)

as of 31st December of the past year. Starting in 2016 and following the three categories for the MGA Outstanding Section Awards, the original **large** category has been divided into a new **large** category and a **medium** category, so that now three awards will be presented annually:

- **one for large Sections** = 1501 or more members (including Students)
- **one for medium Sections** = 501–1501 members (including Students)
- **one for small Sections** = 500 or fewer members (including Students)

as of 31st December of the past year. Each award is for outstanding success of a Section in fulfilling its goals – in accordance with IEEE policy – by organizing technical, professional and geographic activities for the benefit of its members and by maintaining, enhancing, and supporting the Student Branches, Chapters, and Affinity Groups within its geographic boundaries.

2012 **Large** Iran Section

2013 **Large** Croatia Section – For delivering excellent services to its members.

2014 No recipient

- 2015 Small** Oman Section – For delivering excellent services to its members.
- 2015 Large** Tunisia Section – For delivering excellent services to its members.
- 2016 Small** Cyprus Section – For delivering excellent services to its members.
- 2016 Medium** Lebanon Section – For delivering excellent services to its members.
- 2016 Large** Italy Section – For delivering excellent services to its members.
- 2017 Small** Bosnia and Herzegovina Section – For delivering excellent services to its members.
- 2017 Medium** Poland Section – For delivering excellent services to its members.
- 2017 Large** Greece Section – For delivering excellent services to its members.
- 2018 Medium** Croatia Section – For delivering excellent services to its members.
- 2018 Large** Tunisia Section – For delivering excellent services to its members.
- 2019 Small** Mauritius Section.
- 2019 Medium** Lebanon Section.
- 2019 Large** UK and Ireland Section.
- 2020 Large** Germany Section – For delivering excellent service to its members.
- 2021 Large** UK and Ireland Section – For delivering excellent service to its members. **Note:** This award is out of order. Region 8 does not give the same award again within a period of three years.
- 2021 Medium** Iran Section – For delivering excellent service to its members.
- 2023 Large** Egypt Section – For delivering excellent services to its members.

8.12.3 Region 8 Outstanding GOLD / Young Professionals Affinity Group (of the year) Award

Originally entitled the ‘Region 8 GOLD Outstanding Activity Award’ and in 2011 changed into the ‘Region 8 Outstanding GOLD / Young Professionals Affinity Group Award,’ the award recognizes GOLD / Young Professionals Affinity Groups within Region 8 for their efforts, successes and achievements in carrying out the mission of IEEE GOLD / Young Professionals and the aims of IEEE in Region 8 within their Section. Recognition will be given to the Affinity Group that displayed the most successful maintenance of ongoing efforts, and the development and implementation of new programs. These activities shall leave an important imprint on the Section and on Region 8.

2000 Benelux Section, Chair: Sammy Martens

...

- 2010** Nigeria Section, Chair: Prince Ibe
- 2011** Egypt Section, Chair: Mohamed Raafat
- 2012** Croatia Section, Chair: Ana Katalinić
- 2013** Finland Section, Chair: Rafal Sliz
- 2014** Nigeria Section
- 2015** United Arab Emirates Section
- 2016** Sweden Section, Chairs: Samarth Deo / Alberto Lorente Leal – For their continuous hard work and recent developments.
- 2017** Jordan Section – For their never ending dedication and effort on carrying out the mission of IEEE Young Professionals in their Section.
- 2018** Israel Section – For their never ending dedication and effort on carrying out the mission of IEEE Young Professionals in their Section.
- 2019** Croatia Section – For their never ending dedication and effort on carrying out the mission of IEEE Young Professionals in their Section.
- 2020** UK and Ireland Section.
- 2021** Turkiye Section – For delivering excellent service to its members.
- 2022** Nigeria Section – For their never ending dedication and effort on carrying out the mission of IEEE Young Professionals in their Section.
- 2023** Egypt Section – For their never ending dedication and effort on carrying out the mission of IEEE Young Professionals in their Section.

8.12.4 Region 8 GOLD / Young Professionals Exceptional Volunteer Award

To recognize a volunteer within Region 8 for his/her dedication towards the mission of IEEE GOLD /Young Professionals. A recognition will be given to the devoted GOLD / Young Professionals member who presents the most successful maintenance of ongoing efforts, leadership skills, and remarkable development and implementation of new ideas and programs in the previous year. These activities shall have an important impact on the Section and on Region 8.

2013 *Khaled Mokhtar*, Egypt Section

Andreas Neumeier, Germany Section

Tomislav Pokrajčić, Croatia Section

– For their dedication to the mission of IEEE GOLD, Leadership skills, and remarkable development and implementation of new ideas and programs.

2014 *Ivana Stupar*, Croatia Section

Pavlos Kleanthous, Cyprus Section

Amgad Ibrahim, Egypt Section

2015 *Vinko Lešić*, Croatia Section – For his remarkable dedication, hard work and enthusiasm for IEEE as a whole and Young Professionals especially, illustrated through his efforts as part of various teams at Section level, new programs and initiatives implemented as Young Professionals Croatia Affinity Group Chair, including their specific Elevate program, lectures and presence in a variety of fairs and conferences to increase visibility, organizing the 2015 Central European Students and Young Professionals congress, in addition to bridging the gap between students and Young Professionals, and industry and academia.

Samarth Deo, Sweden Section – For his continuous efforts and dedication in promoting Young Professionals in his Section, and working to bring together students, Young Professionals and WiE, in his roles in the Section's executive committee and as past Young Professionals Sweden Affinity Group Chair, as well as organizing the first edition of the Nordic Students and Young Professionals Congress.

(*Honourable mention to Eddy Deeb*, Lebanon Section – For his efforts, enthusiasm and hard work to revive the Young Professionals Lebanon Affinity Group, and the events he and his team have organized this year.)

2016 *Brigitte Lanz*, Finland Section – For her continuous motivation and hard work for Finland Young Professionals.

Ahmed Shalaby, Egypt Section – For his dedication and hard work for Egypt Young Professionals.

2017 *Dovilė Kurpytė*, Lithuania Section – For her dedication carrying out the mission of IEEE Young Professionals in Lithuania.

2018 *Ahmed Abo ElSaoud*, Egypt Section – For his dedication carrying out the mission of IEEE Young Professionals in Egypt.

2019 *Piotr Graca*, Poland Section – For his dedication carrying out the mission of IEEE Young Professionals in Poland.

2020 *Saeed Al Mansoori*, United Arab Emirates Section.

2023 *Mustafa Aqrabawe*, Jordan Section – For outstanding dedication and effort on carrying out the mission of IEEE Young Professionals.

8.12.5 Region 8 Chapter of the Year Award

2001 Small *Ukraine (West)* Microwave Theory and Techniques, Electron Devices, Antennas and Propagation, Components Packaging and Manufacturing Technology, Solid-State Circuits (MTT/ED/AP/CPMT/SSC) Societies Joint Chapter

2001 Large *UK and Ireland* Power Engineering (PE) Society Chapter

2002 Small *Russia (Siberia)* Electron Devices, Microwave Theory and Techniques, Communications, Components Packaging and Manufacturing Technology, Solid-State Circuits (ED/MTT/COM/CPMT/SSC) Societies Joint Chapter

2002 Large *Italy* Lasers and Electro-Optics (LEO) Society Chapter

2003 Small *Yugoslavia* Industrial Electronics, Industrial Applications, Power Electronics (IE/IA/PEL) Societies Joint Chapter

- 2003 Large Germany** Industrial Electronics, Industrial Applications, Power Electronics (IE/IA/PEL) Societies Joint Chapter
- 2004 Small Russia** Lasers and Electro-Optics (LEO) Society Chapter
- 2004 Large Saudi Arabia** Communications (COM) Society Chapter
- 2005 Small Czechoslovakia** Antennas and Propagation, Electron Devices, Microwave Theory and Techniques (AP/ED/MTT) Societies Joint Chapter
- 2005 Large Poland** Antennas and Propagation, Aerospace and Electronic Systems, Microwave Theory and Techniques (AP/AES/MTT) Societies Joint Chapter
- 2006 Small Saudi Arabia** Education (E) Society Chapter
- 2006 Large France** Industrial Applications, Industrial Electronics, Power Electronics (IA/IE/PEL) Societies Joint Chapter
- 2007 Small Saudi Arabia** Industry Applications (IA) Society Chapter
- 2007 Large Italy** Lasers and Electro-Optics (LEO) Society Chapter
- 2008 Small Ukraine (East)** Antennas and Propagation, Nuclear and Plasma Sciences, Aerospace and Electronic Systems, Electron Devices, Engineering in Medicine and Biology, Microwave Theory and Techniques, Geoscience and Remote Sensing (AP/NPS/AES/ED/EMB/MTT/GRS) Societies Joint Chapter
- 2008 Large Germany** Electromagnetic Compatibility (EMC) Society Chapter
- 2009 Small Poland** Antennas and Propagation, Aerospace and Electronic Systems, Microwave Theory and Techniques (AP/AES/MTT) Societies Joint Chapter
- 2009 Large Germany** Industrial Electronics, Industrial Applications, Power Electronics (IE/IA/PEL) Societies Joint Chapter
- 2010 Small Ukraine (East)** Antennas and Propagation, Nuclear and Plasma Sciences, Aerospace and Electronic Systems, Electron Devices, Engineering in Medicine and Biology, Microwave Theory and Techniques, Geoscience and Remote Sensing (AP/NPS/AES/ED/EMB/MTT/GRS) Societies Joint Chapter. **Note:** This award is out of order. Region 8 does not give the same award again within a period of three years.
- 2010 Large Spain** Education (E) Society Chapter
- 2011 Small Lebanon** Communications (COM) Society Chapter
- 2011 Large UK and Ireland** Computational Intelligence (CIS) Society Chapter
- 2012 Small Egypt** Robotics and Automation (RA) Society Chapter – For outstanding performance in technical and educational activities and particularly for the Chapter’s humanitarian service by increasing public awareness through an outdoor robotic competition on demining Egypt: “Minesweepers: Towards a Landmine-free Egypt.”
- 2012 Large** No recipient
- 2013 Small** No recipient
- 2013 Large Italy** Photonics (PHO) Society Chapter – For outstanding performance in demonstrating high vitality and dynamism, by successfully implementing best practices and innovative tactics, substantially enhancing the IEEE Photonics Society’s mission, and for increasing member engagement, bringing photonics closer to a wider audience and stimulating interaction and cross-fertilization between researchers.
- 2014 Small Poland** Antennas and Propagation, Aerospace and Electronic Systems, Microwave Theory and Techniques (AP/AES/MTT) Societies Joint Chapter
- 2014 Large Ukraine (East)** Antennas and Propagation, Microwave Theory and Techniques, Electron Devices, Aerospace and Electronic Systems, Geoscience and Remote Sensing, Nuclear and Plasma Sciences (AP/MTT/ED/AES/GRS/NPS) Societies Joint Chapter
- 2015 Small Cyprus** Power and Energy (PE) Society Chapter
- 2015 Large Sweden** Vehicular Technology, Communications, Information Theory (VT/COM/IT) Societies Joint Chapter
- 2016 Small Tunisia** Robotics and Automation (RA) Society Chapter
- 2016 Large** No recipient
- 2017 Small Croatia** Power and Energy (PE) Society Chapter
- 2017 Large** No recipient
- 2018 Small Algeria** Geoscience and Remote Sensing (GRS) Society Chapter – for serving their members and the tech-

nical community; for establishing goodwill within the Section and between the Region 8 Sections; as well as for the activities and associated contributions during 2018.

- 2018 Large Tunisia** Robotics and Automation (RA) Society Chapter – for serving their members and the technical community; for establishing goodwill within the Section and between the Region 8 Sections for the activities [*sic*]; and for associated contributions during 2018. **Note:** This award is out of order. Region 8 does not give the same award again within a period of three years.
- 2019 Small Croatia** Industry Applications (IA) Society Chapter.
- 2019 Medium Serbia and Montenegro** Microwave Techniques and Technologies (MTT) Society Chapter.
- 2019 Large UK and Ireland** Power and Energy (PE) Society Chapter.
- 2020 Small Mauritius** Power and Energy (PE) Society and Systems (Sys) Council Joint Society/Council Chapter – for serving their members and the technical community, establishing goodwill within the Section and between the Region 8 Sections, and for the activities and associated contributions during Year 2020.
- 2020 Medium Latvia** Communications, Microwave Theory and Techniques, Antennas and Propagation (COM/MTT/AP) Joint Societies Chapter – for serving their members and the technical community, establishing goodwill within the Section and between the Region 8 Sections, and for the activities and associated contributions during Year 2020.
- 2020 Large UK and Ireland** Power and Energy (PE) Society Chapter – for serving their members and the technical community, establishing goodwill within the Section and between the Region 8 Sections, and for the activities and associated contributions during Year 2020. **Note:** This award is out of order. Region 8 does not give the same award again within a period of three years.
- 2021 Small Jordan** Robotics and Automation (RA) Society Chapter – for delivering excellent services to its members.
- 2021 Large Tunisia** Computer (C) Society Chapter – for delivering excellent services to its members.
- 2023 Small Tunisia** Education (EdSoc) Society Chapter – for delivering excellent services to its members.
- 2023 Medium Spain** Electronic Devices (ED) Society Chapter – for delivering excellent services to its members.
- 2023 Large Tunisia** Industry Applications (IA) Society Chapter – for delivering excellent services to its members.

8.12.6 Region 8 Student Branch Chapter of the Year Award

This award is given to the most outstanding IEEE Student Branch Chapter in recognition of their activeness based on quality and quantity of their meetings, programs, projects and member services. This award is to be provided for activities in the previous calendar year.

- 2013** University of Sarajevo Student Branch Industry Applications (IA) Society Chapter in the *Bosnia and Herzegovina* Section – For outstanding performance in organizing a variety of exceptionally successful activities and participated in several projects that led to huge increase in interest for IEEE among students in Sarajevo in particular and Bosnia and Herzegovina in general.
- 2014** Institute for Radiophysics and Electronics of the National Academy of Sciences of Ukraine (IRE NASU) Kharkiv Student Branch Antennas and Propagation (AP) Society Chapter in the *Ukraine* Section
- 2015** Democritus University of Thrace Student Branch Industry Applications (IA) Society Chapter in the *Greece* Section
- 2016** No recipient
- 2018 Small Al-Balqa** Applied University Student Branch Communications (COM) Society Chapter in the *Jordan* Section – for serving their members and the technical community; for establishing goodwill within the Jordan Section and between the Region 8 Sections; as well as for the activities and associated contributions during 2018.
- 2018 Medium** University of Manchester Student Branch Power and Energy (PE) Society Chapter in the *UK and Ireland* Section – for serving their members and the technical community; for establishing goodwill within the United Kingdom and Ireland Section and between the Region 8 Sections; as well as for the activities and associated contributions during 2018.
- 2018 Large** National Institute of Applied Science and Technology (INSAT) Student Branch Robotics and Automation (RA) Society Chapter in the *Tunisia* Section – for serving their members and the technical community; for establishing goodwill within the Tunisia Section and between the Region 8 Sections; as well as for the activities and associated contributions during 2018.

- 2019 Small** National Institute of Applied Science and Technology (INSAT) Student Branch Industry Applications (IA) Society Chapter in the *Tunisia* Section.
- 2019 Medium** Manipal University Dubai Student Branch Robotics and Automation (RA) Society Chapter in the *United Arab Emirates* Section.
- 2019 Large** National Institute of Applied Science and Technology (INSAT) Student Branch Robotics and Automation (RA) Society Chapter in the *Tunisia* Section. **Note:** This award is out of order. Region 8 does not give the same award again within a period of three years.
- 2020 Small** Kyambogo University Student Branch Photonics (PHO) Society Chapter in the *Uganda* Section – for serving their members and the technical community, establishing goodwill within the Section and between the Region 8 Sections, and for the activities and associated contributions during Year 2020.
- 2020 Medium** École supérieure privée d'ingénierie et de technologie (ESPRIT) Student Branch Industry Applications (IA) Society Chapter in the *Tunisia* Section – for serving their members and the technical community, establishing goodwill within the Section and between the Region 8 Sections, and for the activities and associated contributions during Year 2020.
- 2020 Large** École supérieure privée d'ingénierie et de technologie (ESPRIT) Student Branch Computer (C) Society Chapter in the *Tunisia* Section – for serving their members and the technical community, establishing goodwill within the Section and between the Region 8 Sections, and for the activities and associated contributions during Year 2020.
- 2021 Small** École supérieure privée d'ingénierie et de technologie (ESPRIT) Student Branch Aerospace and Electronic Systems (AES) Society Chapter in the *Tunisia* Section – for delivering excellent services to its members.
- 2021 Large** École supérieure privée d'ingénierie et de technologie (ESPRIT) Student Branch Industry Applications (IA) Society Chapter in the *Tunisia* Section – for delivering excellent services to its members. **Note:** This award is out of order. Region 8 does not give the same award again within a period of three years.
- 2023 Small** SS Cyril & Methodius University Student Branch Solid-State Circuits (SSC) Society Chapter in the *North Macedonia* Section – for delivering excellent services to its members.
- 2023 Medium** Yarmouk University Student Branch Computer (C) Society Chapter in the *Jordan* Section – for delivering excellent services to its members.
- 2023 Large** École Nationale d'Ingénieurs de Sousse Student Branch Industry Applications (IA) Society Chapter in the *Tunisia* Section – for delivering excellent services to its members.

8.12.7 Larry K. Wilson Regional Student Activities Award

The purpose of this award is to recognize annually, in each Region of the IEEE, the student most responsible for an extraordinary accomplishment associated with IEEE student activities. The value of a pattern of dedicated, ongoing service to a branch is certainly recognized. This award is designed to reward a particular event or product of IEEE activities.

1998 *Ali Shahrokni*, Iran Section

...

2002 *Nahel M. Amirah*, Egypt Section

...

2006 *Pablo Herrero*, Spain Section

2007 *Emine Gökçe Aydal*, UK and Ireland Section

2008 *Mounira Maazaoui*, Tunisia Section

2009 *Zhijia Huang*, UK and Ireland Section

2010 *C. Serkan Baydin*, Turkiye Section

2011 *Sinan Sabih*, Qatar Section

2012 *Piotr Graca*, Poland Section

2013 *Rui Miguel Costa*, Portugal Section – For an extraordinary accomplishment called: IEEE IST Academic.

2014 *Josip Balen*, Croatia Section

2015 *Uzay Kaş*, Turkiye Section – For his outstanding efforts in organising the 1st IEEE PES Student Congress.

- 2016** No recipient
2017 No recipient
2018 *Kithinji Muriungi*, Kenya Section
2019 *Theodoros Panagiotis Chatzinikolaou*, Greece Section – For extraordinary accomplishments associated with Student Activities.

8.12.8 Clementina Saduwa Award

Recognizes a women engineer in Region 8 who, through their engineering and career achievements, has demonstrated noteworthy support for women in the profession and has established a benchmark of engineering excellence.

Citation: "For her engineering and career achievements and noteworthy support for women in the profession."

- 2008** *Clementina Saduwa* posthumously, Nigeria Section
2010 *Elena Smotrova*, Ukraine Section
2011 *Ilhem Kallel*, Tunisia Section
2012 *Wejdan Abu-Elhaija*, Jordan Section
2013 *Fatma-El Zahraa Abou-Chadi*, Egypt Section
2014 *Monique Jeanne Morrow*, Switzerland Section
2015 *Eman Salem Alashwali*, Western Saudi Arabia Section
2016 *Nazre Batool*, Sweden Section
2017 *Daniela Danciu*, Romania Section
2018 *Ana Katalinić Mucalo*, Croatia Section
2019 *Mercy Chelangat Koech*, Kenya Section
2020 *Hagit Messer-Yaron*, Israel Section
2021 *Mariya Antyufeyeva*, Ukraine Section – For her noteworthy support for women in the profession through her engineering and career achievements and establishing a record of excellence.
2023 *Simay Akar*, Turkiye Section – For her noteworthy support for women in the profession through her engineering and career achievements and establishing a record of excellence.

8.12.9 Outstanding Women in Engineering Section Volunteer Award

- 2022** *Nagham Saeed*, UK and Ireland Section – For delivering excellent service to WIE members.
2023 *Annabel Latham*, UK and Ireland Section – For delivering excellent service to WIE members.

8.12.10 Outstanding Women in Engineering Student Volunteer Award

- 2022** *Manar Bouaouina*, Tunisia Section – For delivering excellent service to WIE members.
2023 *Roshan Mohyeldeen Ahmed*, Egypt Section – For delivering excellent service to WIE members.
2023 *Baya Bouchaala*, Tunisia Section – For delivering excellent service to WIE members.

8.12.11 Outstanding Women in Engineering Section Affinity Group of the Year Award

- 2022** *Italy* Section – For delivering excellent service to its members.
2023 *Jordan* Section – For delivering excellent service to its members.

8.12.12 Outstanding Women in Engineering Student Affinity Group of the Year Award

- 2022** Politecnico di Torino Student Branch, *Italy* Section – For delivering excellent service to its members.
2023 École Nationale d'Electronique et des Télécommunications de Sfax Student Branch, *Tunisia* Section – For delivering excellent service to its members.

8.12.13 Outstanding Section SIGHT of the Year Award

2022 *UK and Ireland Section* – For delivering excellent service to its members and local community.

2023 *Kenya Section* – For delivering excellent service to its members and the local community.

8.12.14 Outstanding Student Branch SIGHT of the Year Award

2022 École supérieure privée d'ingénierie et de technologie (ESPRIT) Student Branch, *Tunisia Section* – For delivering excellent service to its members and local community.

2023 École supérieure des sciences et de la technologie de Hammam Sousse Student Branch, *Tunisia Section* – For delivering excellent service to its members and the local community.

8.13 Life Members Awards

8.13.1 Outstanding Life Members Affinity Groups

The Outstanding Life Members Affinity Groups were identified based on the number of Life members events held, the average attendance at those events, and the number of contributors to the IEEE Life Members Fund. Attendance and the number of contributors are normalized to the number of Life members in the Section.

2009 *UK and Ireland Section*, Chair: Roland J. Saam

2010 *Croatia Section*, Chair: Aleksandar Szabo

2010 *Israel Section*, Chair: Jacob Baal-Schem

2010 *Italy Section*, Chair: Valerio Cimagalli

2011 *Israel Section*, Chair: Jacob Baal-Schem

2011 *UK and Ireland Section*, Chair: Roland J. Saam

2012 *Croatia Section*, Chair: Branka Zovko-Cihlar / Aleksandar Szabo

2012 *Israel Section*, Chair: Jacob Baal-Schem

2013 *Israel Section*, Chair: Jacob Baal-Schem

2014 *Croatia Section*, Chair: Branka Zovko-Cihlar

2014 *Israel Section*, Chair: Jacob Baal-Schem

The Outstanding Life Members Affinity Groups program was discontinued in 2015 and replaced with the IEEE Global Life Members Affinity Group Achievement Award to recognize those substantive projects or achievements that have left an undeniable imprint on the fabric of IEEE Life Members operations or the IEEE Life Members Fund. The IEEE Regional Life Members Affinity Group Award was added in 2020.

8.13.2 IEEE Global Life Members Affinity Group Achievement Award

This award is given annually to one Life Members Affinity Group to recognize those substantive projects or achievements that have left an undeniable imprint on the fabric of IEEE Life Members operations or the IEEE Life Members Fund.

2016 *Israel Section*, Chair: Jacob Baal-Schem – In recognition of the Israel Life Members Affinity Group continued involvement in modern technologies.

8.13.3 IEEE Regional Life Members Affinity Group Achievement Award

This award is given annually to one Life Members Affinity Group in each Region to recognize those substantive projects or achievements that have left an undeniable imprint on the fabric of IEEE Life Members operations or the IEEE Life Members Fund.

2022 *Germany Section*, Chair: Hagen Hultsch – For flourishing success of IEEE Germany Life Members Affinity Group.

2023 *UK and Ireland Section*, Chair: Charles W. Turner – For the motivation of Life Members and Students in IEEE activities by the planning and delivery of a comprehensive series of Milestone events and symposia.

8.13.4 IEEE Regional Life Members Individual Service Award

This award is given annually to one individual in each Region to honor superior individual contributions to the Life Members organization.

2022 *Georgi Marko Dimirovski*, North Macedonia Section – For continuing dedicated services to IEEE Organization and Life Members.

2023 *Wim van Etten*, Benelux Section – Recognizing Wim van Etten’s leadership in establishing and driving the IEEE Benelux Life Member Affinity Group, culminating in three IEEE Milestones commemorating important historical developments in the Benelux.

9 Miscellaneous lists

9.1 Region 8 News

The Region 8 Newsletter was started by Robert C.G. Williams – at that time Region 8 Director – at his home office in Guildford, using stencils and a hand cranked printing machine. Gordon H. (Mick) Byford lived close to Guildford in Farnham and then further developed the newsletter production.

Region 8 News editors:

1. W.H. (Bill) Devenish (1967–1985). First issue in December 1967; roughly 4 issues per year; last issue of this editor: Nr. 69 in May 1985. Issues 1 through 76 had the title *IEEE Region 8 newsletter*; issues 77 through 85 were entitled *IEEE Region EIGHT News*; starting with issue 86, the title was *IEEE Region 8 News*.
2. Gordon H. (Mick) Byford (1985–1998) started with Nr. 70 in May 1985 and held the position until Nr. 122 in May 1998.
3. Duncan C. Baker (1998–2001) started with Vol. 1 Nr. 1 in August 1998 until Vol. 4 nr. 4 in November 2001.
4. Roland J. Saam (2002-2013) started with the production of Vol. 5 Nr. 1 in February 2002 until Vol. 16 Nr. 1 in April 2013.
5. Zhijia Huang took the position with the production of Vol. 16 Nr. 2 in August 2013.
6. After Vol. 21, Nr. 3 in September 2018, production of Region 8 News stopped for almost three years. Region 8 News was revived in June 2021 with the production of Vol. 22 Nr. 1, with Cátia Bandejas as the new editor.
7. In 2022, Vinko Lešić became the new editor in chief.
8. In 2023, Maja Matijašević became the new editor in chief.

Before the start of the Region 8 Newsletter, the Student Activities Chair, Paul G.A. Jaspers, took the initiative for a Region 8 Student Activity Newsletter, of which three issues appeared: in January, April, and June 1967. André S. Vander Vorst, Secretary-Treasurer and later Vice Chair of the Student Activities Committee, was instrumental in producing this newsletter.

From the first issue of the IEEE Region 8 Newsletter:

Message from the Director of Region 8

This is the first issue of a new publication to serve the members of Region 8 and which carries good wishes of the President and Board of Directors.

As you will know, the IEEE is organised on a world-wide basis into ten Regions, of which Region 8 extends over Europe, the Middle East and North Africa, with a membership of over 4000 including some 300 students organised in 11 Sections and 5 student branches.

While the members residing in Section areas have their own lines of communication, and students have had their own Newsletter, there has so far been no Region-wide publication and it is hoped that this Newsletter, issued two or three times a year, will fill this communication gap and enable all members of all grades to feel that they are part of a Regional organisation.

Copies of the Newsletter will be mailed direct to all members, including students; editorial policy is under the control of an international committee of which Jean Lebel, the immediate Past Director, is Chairman; the Editor is Bill Devenish, who has been the Editor of the U.K.R.I. Newsletter; and the proposed make-up will cover Institute announcements of particular interest to the Region and Regional, Section and Student news. Not only will this inform everyone of the various sectional and student activities, but it is hoped will also stimulate membership and the formation of new sections and student branches within the Region.

In wishing this new publication every success, I would like to thank all those whose work has helped to make it possible, and to close by reminding all of us that its future depends on the extent to which it is of service to members and that this, in turn, depends on the support it receives from each and every one of us.

Robert C.G. Williams

Regular topics in the IEEE Region 8 newsletter include Report from the Regional Director, Institute News, Publications and Courses, Region 8 News, Meetings in Region 8, Meetings outside Region 8, News of the Sections, Student Activity News.

With issue 18, April/May 1972, the IEEE Region 8 newsletter changed its style and announced the acceptance of advertisements in coming issues.

Issue numbers and publication dates of Region 8 News

| year | Vol. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1967 | | | | | | | | | | | | | 1 |
| 1968 | | | | 2 | | | 3 | | | 4 | | | 5 |
| 1969 | | | | 6 | | | 7 | | | 8 | | | 9 |
| 1970 | | | | | 10 | | | 11 | | 12 | | | 13 |
| 1971 | | | | 14 | | | 15 | | | 16 | | | 17 |
| 1972 | | | | | 18 | | | | 19 | | | | |
| 1973 | | 20 | | | 21 | | | 22 | | | 23 | | |
| 1974 | | 24 | | 25 | 26 | | | 27 | | | 28 | | |
| 1975 | | 29 | | | 30 | | | 31 | | | 32 | | |
| 1976 | | 33 | | | 34 | | | 35 | | | 36 | | |
| 1977 | | 37 | | | 38 | | | 39 | | | 40 | | |
| 1978 | | 41 | | | 42 | | | | 43 | | | 44 | |
| 1979 | | | 45 | | | 46 | | | 47 | | | 48 | |
| 1980 | | | 49 | | | 50 | | | 51 | | | 52 | |
| 1981 | | | 53 | | | 54 | | | 55 | | | 56 | |
| 1982 | | | 57 | | | 58 | | | 59 | | | 60 | |
| 1983 | | | 61 | | | 62 | | | 63 | | | 64 | |
| 1984 | | | 65 | | | 66 | | | 67 | | | 68 | |
| 1985 | | | 69 | | | 70 | | | 71 | | | 72 | |
| 1986 | | | 73 | | | 74 | | | 75 | | | 76 | |
| 1987 | | | 77 | | | 78 | | | 79 | | | 80 | |
| 1988 | | | 81 | | | 82 | | | 83 | | | 84 | |
| 1989 | | | 85 | | | 86 | | | 87 | | | 88 | |
| 1990 | | | 89 | | | 90 | | | 91 | | | 92 | |
| 1991 | | | 93 | | | 94 | | | 95 | | | 96 | |
| 1992 | | | 97 | | | 98 | | | 99 | | | 100 | |
| 1993 | | | 101 | | | 102 | | | 103 | | | 104 | |
| 1994 | | | 105 | | | 106 | | | 107 | | | 108 | |
| 1995 | | | 109 | | | 110 | | | 111 | | | 112 | |
| 1996 | | | 113 | | | 114 | | | 115 | | | 116 | |
| 1997 | | | 117 | | | 118 | | | 119 | | | 120 | |
| 1998 | | | 121 | | | 122 | | | | | | | |
| 1998 | 1 | | | | | | | | 1 | | | 2 | |
| 1999 | 2 | | 1 | | | 2 | | | 3 | | | 4 | |
| 2000 | 3 | | 1 | | | 2 | | | 3 | | | 4 | |
| 2001 | 4 | | 1 | | | 2 | | | 3 | | | 4 | |

Issue numbers and publication dates of Region 8 News

| year | Vol. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2002 | 5 | | 1 | | | 2 | | | 3 | | | 4 | |
| 2003 | 6 | | 1 | | | 2 | | | | 3 | | 4 | |
| 2004 | 7 | | 1 | | | 2 | | | | 3 | | | 4 |
| 2005 | 8 | | | 1 | | | 2 | | | 3 | | | 4 |
| 2006 | 9 | | | 1 | | | 2 | | | 3 | | | 4 |
| 2007 | 10 | | | 1 | | | | | 2 | | | | 3 |
| 2008 | 11 | | | 1 | | | | 2 | | | | | |
| 2009 | 12 | 1 | | | | 2 | | | 3 | | | | 4 |
| 2010 | 13 | | | 1 | | | 2 | | | 3 | | | 4 |
| 2011 | 14 | | | 1 | | | 2 | | | 3 | | | 4 |
| 2012 | 15 | | | 1 | | | 2 | | | | | 3 | |
| 2013 | 16 | | | | 1 | | | | 2 | | | | 3 |
| 2014 | 17 | | | | 1 | | | | 2 | | | 3 | |
| 2015 | 18 | | | | 1 | | | | | 2 | | | 3 |
| 2016 | 19 | | | | 1 | | | | 2 | | | | |
| 2017 | 20 | | | | | | | | | 1 | | | |
| 2018 | 21 | | | 1 | | | 2 | | | 3 | | | |
| 2021 | 22 | | | | | | 1 | | | | | | 2 |
| 2022 | 23 | | | 1 | | | 2 | | | 3 | | | 4 |
| 2023 | 24 | | | 1 | | | 2 | | | 3 | | | |

9.2 IEEE Milestones in Region 8

- London, England** *Benjamin Franklin's work in London, 1757–1775* #47
 Dedicated 31 March 2003 – IEEE UK and Ireland Section
 Benjamin Franklin, American electrician, printer, and diplomat, spent many years on Craven Street. He lived at No. 7 between 1772 and 1775 and at No. 36 from 1757–1762 and again from 1764–1772. During these years, Franklin popularized the study of electricity, performed experiments, and served as an advisor on lightning conductors.
- Como, Italy** *Volta's electrical battery invention, 1799* #27
 Dedicated 1 September 1999 – IEEE North Italy Section
 In 1799, Alessandro Volta developed the first electrical battery. This battery, known as the Voltaic Cell, consisted of two plates of different metals immersed in a chemical solution. Volta's development of the first continuous and reproducible source of electrical current was an important step in the study of electromagnetism and in the development of electrical equipment.
- Barcelona, Spain** *Salvá's electric telegraph, 1804* #193
 Dedicated 17 May 2019 – IEEE Spain Section
 On 22 February 1804, Francisco Salvá y Campillo reported to the Barcelona Royal Academy of Sciences, in Spain, a new kind of electric telegraph. He proposed a new method of telegraphy by combining the generation of an electric current using the recently-invented voltaic pile with detection by water electrolysis. Salvá's report described the elements required and how they should be arranged to convey information at a distance.
- Paris, France** *The birth of electrodynamics, 1820–1827* #233
 Dedicated 3 April 2023 – IEEE France Section
 Stimulated by experimental reports that an electric current could deflect a compass needle, André-Marie Ampère discovered the fundamental law of electrodynamics, the science of interactions between electric currents. He then developed the theory that electric currents are responsible for magnetism. These achievements formed the basis for electrical technologies, including electric motors and generators. In 1881, the International Electrical Congress named the unit of electric current the 'ampere' (A).
- St. Petersburg, Russia** *Shilling's pioneering contribution to practical telegraphy, 1828–1837* #94
 Dedicated 18 May 2009 – IEEE Russia (Northwest) Section
 In this building, Shilling's original electromagnetic telegraph is exhibited. P.L. Shilling, a Russian scientist, successfully transmitted messages over different distances by means of an electric current's effect on a magnetic needle, using two signs and a telegraph dictionary for transferring letters and digits. Shilling's demonstrations in St. Petersburg and abroad provided an impetus to scientists in different countries and influenced the invention of more advanced electromagnetic telegraphs.
- Maynooth, Ireland** *Callan's pioneering contributions to electrical science and technology, 1836* #66
 Dedicated 5 September 2006 – IEEE UK and Ireland Section
 Reverend Nicholas Callan (1799–1864), professor of Natural Philosophy at Saint Patrick's College Maynooth, contributed significantly to the understanding of electrical induction and the development of the induction coil. He did this through a series of experiments that made the inductive transient phenomena visibly clear. The apparatus used in these experiments was replicated in other laboratories.
- Pisa, Italy** *First studies on ring armature for direct-current dynamos, 1860–1863* #192
 Dedicated 4 December 2018 – IEEE Italy Section
 A dynamo with a slotted ring armature, described and built at the University of Pisa by Antonio Pacinotti, was a significant step leading to practical electrical machines for direct current. Groups of turns of the closed winding were connected to the bars of a commutator. The machine worked as a motor also.
- Glasgow, Scotland** *Standardisation of the ohm as a unit of electrical resistance, 1861–1867* #201
 Dedicated 17 September 2019 – IEEE UK and Ireland Section
 The International Committee on Electrical Standards, with contributions by Fleeming Jenkin, James Clerk Maxwell, William Thomson, Werner von Siemens, and colleagues, advised the British Association for the

Advancement of Science in providing a widely recognised standard for electrical resistance. This unit, subsequently named after Georg Simon Ohm, is the resistance of a conductor such that a constant current of one ampere produces a potential difference of one volt.

London, England; Glenlair, Scotland *Maxwell's equations, 1861–1870* #86

Dedicated 13 August 2009 – IEEE UK and Ireland Section

Between 1860 and 1871, at his family home Glenlair and at King's College London, where he was Professor of Natural Philosophy, James Clerk Maxwell conceived and developed his unified theory of electricity, magnetism and light. A cornerstone of classical physics, the Theory of Electromagnetism is summarized in four key equations that now bear his name. Maxwell's equations today underpin all modern information and communication technologies.

County Kerry, Ireland *County Kerry transatlantic cable stations, 1866* #32

Dedicated 13 July 2000 – IEEE UK and Ireland Section

On July 13, 1866 the Great Eastern steamed westward from Valentia, laying telegraph cable behind her. The successful landing at Heart's Content, Newfoundland on July 27 established a permanent electrical communications link that altered for all time personal, commercial and political relations between people across the Atlantic Ocean. Later, additional cables were laid from Valentia and new stations opened at Ballinskelligs (1874) and Waterville (1884), making County Kerry a major focal point for global communications.

County Kerry has dedicated part of their web site to this event. You can find the Milestone under "Heritage."

Torino, Italy *Rotating fields and early induction motors, 1885–1888* #211

Dedicated 21 January 2021 – IEEE Italy Section

Galileo Ferraris, professor at the Italian Industrial Museum (now Polytechnic) of Turin, conceived and demonstrated the principle of the rotating magnetic field. Ferraris' field, produced by two stationary coils with perpendicular axes, was driven by alternating currents phase-shifted by 90 degrees. Ferraris also constructed prototypes of two-phase AC motors. Rotating fields, polyphase currents, and their application to induction motors had a fundamental role in the electrification of the world.

Karlsruhe, Germany *First generation and experimental proof of electromagnetic waves, 1886–1888* #150

Dedicated 5 December 2014 – IEEE Germany Section

In this building, Heinrich Hertz first verified Maxwell's equations and prediction of electromagnetic waves in 1886–1888. He observed the reflection, refraction and polarization of the waves and, moreover, the equality of their velocity of propagation with the velocity of light. His 450 MHz transmitter and receiver demonstrated the fundamentals of high-frequency technology.

Karlsruhe, Germany *First exploration and proof of liquid crystals, 1889* #182

Dedicated 11 October 2017 – IEEE Germany Section

The first liquid crystal materials were characterized in 1889 by Otto Lehmann in this building. Lehmann recognized the existence of a new state of matter, "flüssige Kristalle" or liquid crystals, which flow like a liquid but have the optical property of double refraction characteristic of crystals. Lehmann's work on these compounds opened the door to further liquid crystal research and eventually displays and other applications

Paris, France *Discovery of radioconduction by Edouard Branly, 1890* #102

Dedicated 23 September 2010 – IEEE France Section

In this building, Edouard Branly discovered radioconduction, now called the Branly Effect. On 24 November 1890, he observed that an electromagnetic wave changes the ability of metal filings to conduct electricity. Branly used his discovery to make a very sensitive detector called a coherer, improved versions of which became the first practical wireless signal receivers.

St. Petersburg, Russia *Popov's contribution to the development of wireless communication, 1895* #58

Dedicated 20 May 2005 – IEEE Russia (Northwest) Section

On 7 May 1895, A.S. Popov demonstrated the possibility of transmitting and receiving short, continuous signals over a distance up to 64 meters by means of electromagnetic waves with the help of a special portable device

responding to electrical oscillation which was a significant contribution to the development of wireless communication.

Pontecchio Marconi, Italy *Marconi's early experiments in wireless telegraphy, 1895* #113

Dedicated 29 April 2011 – IEEE Italy Section

In this garden, after the experiments carried out between 1894 and 1895 in the “Silkworm Room” in the attic of Villa Griffone, Guglielmo Marconi connected a grounded antenna to its transmitter. With this apparatus the young inventor was able to transmit radiotelegraphic signals beyond a physical obstacle, the Celestini hill, at a distance of about two kilometres. The experiment heralded the birth of the era of wireless communication.

On this hill, during the summer of 1895, the radiotelegraphic signals sent by Guglielmo Marconi from the garden of Villa Griffone were received. The reception was communicated to Marconi with a gunshot. This event marked the beginning of the new era of wireless communication

Šibenik, Croatia *Krka-Šibenik electric power system, 1895* #134

Dedicated 5 July 2013 – IEEE Croatia Section

On 28 August 1895 electricity generated at this location was transmitted to the city of Šibenik, where six power transformers supplied a large number of street lamps. This early system of power generation, transmission and distribution was one of the first complete multiphase alternating current systems in the world and it remained in operation until World War I.

Budapest, Hungary *Budapest metroline No. 1, 1896* #229

Dedicated 20 October 2022 – IEEE Hungary Section

In 1896, Budapest Metro Line No. 1 was inaugurated, the first underground railway designed specifically to use electric power, rather than adapted from steam-powered systems. It offered several innovative elements, including bidirectional motor carriages, the “goose neck chassis,” and electric lighting in the stations and carriages. This line’s design influenced later subway construction in Boston, Paris, Berlin, and other metropolitan areas worldwide.

Brest, France *The French transatlantic telegraph cable, 1898* #191

Dedicated (in Déolen, Locmaria-Plouzané, Brest) 29 September 2017 – IEEE France Section

Dedicated (in Orleans, Massachusetts, USA) 6 September 2018 – IEEE Providence Section

The submarine telegraph cable known as Le Direct provided communication between Europe and North America without intermediate relaying. In a remarkable feat of oceanic engineering, the cable was laid in the deepest waters of the Atlantic Ocean between Brest, France, and Orleans, Massachusetts. When completed in 1898 by La Compagnie Française des Câbles Télégraphiques, it spanned 3174 nautical miles (5878 km), making it the longest and heaviest cable in service.

Rheinfelden, Germany *Rheinfelden hydroelectric power plant, 1898–2010* #146

Dedicated 25 September 2014 – IEEE Germany Section

The original Rheinfelden plant was an outstanding achievement in Europe’s early large-scale generation of hydroelectric power. It was important for its 17,000 horsepower (12,500 kilowatt) output, for pioneering three-phase alternating current later adopted around the world, and using 50-Hertz frequency which afterwards became standard in most countries. Gradually, Rheinfelden entered into joint operation with other stations, from which the interconnected network of continental Europe evolved.

Capetown, South Africa *First operational use of wireless telegraphy, 1899–1902* #29

Dedicated 29 September 1999 - IEEE South Africa Section

The first use of wireless telegraphy in the field occurred during the Anglo-Boer War (1899–1902). The British Army experimented with Marconi’s system and the British Navy successfully used it for communication among naval vessels in Delagoa Bay, prompting further development of Marconi’s wireless telegraph system for practical uses.

Poldhu, Cornwall, England *Transmission of transatlantic radio signals, 1901* #37

Dedicated 12 December 2001 – IEEE UK and Ireland Section

On December 12, 1901, a radio transmission of the Morse code letter ‘S’ was broadcast from this site, using

equipment built by John Ambrose Fleming. At Signal Hill in Newfoundland, Guglielmo Marconi, using a wire antenna kept aloft by a kite, confirmed the reception of these first transatlantic radio signals. These experiments showed that radio signals could propagate far beyond the horizon, giving radio a new global dimension for communications in the twentieth century.

Madrid, Spain *Early developments in remote-control, 1901* #73

Dedicated 15 March 2007 – IEEE Spain Section

In 1901, the Spanish engineer, Leonardo Torres-Quevedo began the development of a system, which he called Telekine, which was able to do “mechanical movements at a distance.” The system was a way of testing dirigible balloons of his own creation without risking human lives. In 1902 and 1903 he requested some patents for the system. With the Telekine, Torres-Quevedo laid down modern wireless remote-control operation principles.

Rome, Italy *Giovanni Giorgi’s contribution to the rationalized system of units, 1901–1902* #220

Dedicated 15 December 2021 – IEEE Italy Section

Giovanni Giorgi proposed rationalizing the equations of electromagnetism. His proposal added an electrical unit to the three mechanical units of measurement (meter, kilogram, second). While he was a professor at the University of Rome, the International Electrotechnical Commission adopted a version of Giorgi’s system. His ideas formed the basis of the universally adopted International System (SI) of units, currently used in all fields of science and engineering.

Leiden, Netherlands *String galvanometer to record a human electrocardiogram, 1901–1905* #222

Dedicated 8 April 2022 – IEEE Benelux Section

On 22 March 1905, the first successful clinical recording of a human electrocardiogram (ECG) took place at this location, which at the time was the Academic Hospital Leiden. Willem Einthoven’s pioneering work, from 1901 to 1905, resulted in a string galvanometer specifically designed to measure and record the heart’s electrical activity, which made this medical achievement possible. This invention marked the beginning of electrocardiography as a major clinical diagnostic tool.

Lyngby, Denmark *Poulsen-arc radio transmitter, 1902* #24

Dedicated 1 May 1994 – IEEE Denmark Section

Valdemar Poulsen, a Danish engineer, invented an arc converter as a generator of continuous-wave radio signals in 1902. Beginning in 1904, Poulsen used the arc for experimental radio transmission from Lyngby to various receiving sites in Denmark and Great Britain. Poulsen-arc transmitters were used internationally until they were superseded by vacuum-tube transmitters.

Leskovac, Yugoslavia *Vucje hydroelectric plant, 1903* #59

Dedicated 25 June 2005 – IEEE Yugoslavia Section

The Vucje hydroelectric plant began operation in 1903. It was the first in southern Serbia and the largest in the broader region. By transmitting alternating electric current of 50 Hz at 7000 volts – high for the period – over a distance of 16 km, it helped to transform the regional economy. It remained in continual use for more than a century.

London, England *Fleming valve, 1904* #54

Dedicated 1 July 2004 – IEEE UK and Ireland Section

Beginning in the 1880s Professor John Ambrose Fleming of University College London investigated the Edison effect, electrical conduction within a glass bulb from an incandescent filament to a metal plate. In 1904 he constructed such a bulb and used it to rectify high frequency oscillations and thus detect wireless signals. The same year Fleming patented the device, later known as the ‘Fleming valve.’

Köln, Germany *Demonstration of a radar predecessor, 1904* #203

Dedicated 19 October 2019 – IEEE Germany Section

On 17 May 1904, near this site, Christian Hülsmeier demonstrated his Telemobiloskop: a spark gap transmitter, simple parabolic antennas, detector, and an indicator. It was designed to ring a bell when a barge passed the system at a range of several hundred meters. He patented this device in Germany, the United Kingdom, and the U.S.A. This was the world’s first operable device to detect radio reflections, a predecessor of radar.

- Leiden, Netherlands** *Discovery of superconductivity, 1911* #112
 Dedicated 8 April 2011 – IEEE Benelux Section/IEEE Superconductivity Council
 On 8 April 1911, in this building, Professor Heike Kamerlingh Onnes and his collaborators, Cornelis Dorsman, Gerrit Jan Flim, and Gilles Holst, discovered superconductivity. They observed that the resistance of mercury approached “practically zero” as its temperature was lowered to 3 kelvins. Today, superconductivity makes many electrical technologies possible, including Magnetic Resonance Imaging (MRI) and high-energy particle accelerators.
- Warsaw, Poland; Berlin, Germany; Kcynia, Poland** *Czochralski method of crystal growth, 1916* #205
 Dedicated 14 November 2019 – IEEE Poland and Germany Sections
 In 1916, Jan Czochralski invented a method of crystal growth used to obtain single crystals of semiconductors, metals, salts and synthetic gemstones during his work at AEG in Berlin, Germany. He developed the process further at the Warsaw University of Technology, Poland. The Czochralski process enabled development of electronic semiconductor devices and modern electronics.
- Königs Wusterhausen, Germany** *Germany’s first broadcast transmission from the radio station Königs Wusterhausen, 1920* #167
 Dedicated 16 July 2016 – IEEE Germany Section
 In early 1920, in this building, technicians of the Königs Wusterhausen radio station together with employees from the Telegraphentechnisches Reichsamts began experiments broadcasting voice and music using an arc transmitter. By late 1920, tests had become successful enough to transmit an instrumental concert on 22 December – the so-called Christmas concert. This transmission is regarded as the birth of statutorily regulated broadcasting in Germany.
- Florence, Italy** *Enrico Fermi’s major contribution to semiconductor statistics, 1924–1926* #159
 Dedicated 4 December 2015 – IEEE Italy Section
 Nobel laureate Enrico Fermi developed the quantum statistics that would be named after him while teaching at the School of Engineering of the University of Florence. The Fermi-Dirac statistics were a fundamental contribution to semiconductor physics and to the development of electronics.
- London, UK** *First public demonstration of television, 1926* #171
 Dedicated on 26/27 January 2017– IEEE UK and Ireland Section
 Members of the Royal Institution of Great Britain witnessed the world’s first public demonstration of live television on 26 January 1926 in this building at 22 Frith Street, London. Inventor and entrepreneur John Logie Baird used the first floor as a workshop during 1923–1926, for various experimental activities, including the development of his television system. The BBC adopted Baird’s system for its first television broadcast service in 1930.
- Ardnacrusha, Limerick, Ireland** *Shannon scheme for the electrification of the Irish free state, 1929* #43
 Dedicated 29 July 2002 – IEEE UK and Ireland Section (IEEE Milestone and ASCE International Historic Engineering Landmark)
 The Shannon Scheme was officially opened at Parteen Weir on 22 July 1929. One of the largest engineering projects of its day, it was successfully executed by Siemens to harness the Shannon River. It subsequently served as a model for large-scale electrification projects worldwide. Operated by the Electricity Board of Ireland, it had an immediate impact on the social, economic and industrial development of Ireland and continues to supply significant power beyond the end of the 20th century.
- London, UK** *Invention of stereo sound reproduction, 1931* #154
 Dedicated 1 April 2015 – IEEE UK and Ireland Section
 Alan Dower Blumlein filed a patent for a two-channel audio system called “stereo” on 14 December 1931. It included a “shuffling” circuit to preserve directional sound, an orthogonal “Blumlein Pair” of velocity microphones, the recording of two orthogonal channels in a single groove, stereo disc-cutting head, and hybrid transformer to mix directional signals. Blumlein brought his equipment to Abbey Road Studios in 1934 and recorded the London Philharmonic Orchestra.
- Warsaw, Poland** *First breaking of Enigma code by the team of Polish Cipher Bureau, 1932–1939* #142

Dedicated 5 August 2014 – IEEE Poland Section

Polish Cipher Bureau mathematicians Marian Rejewski, Jerzy Różycki and Henryk Zygalski broke the German Enigma cipher machine codes. Working with engineers from the AVA Radio Manufacturing Company, they built the ‘bomba’ – the first cryptanalytic machine to break Enigma codes. Their work was a foundation of British code breaking efforts which, with later American assistance, helped end World War II.

Kharkiv, Ukraine *Zenit parabolic reflector L-band pulsed radar, 1938* #177

Dedicated 31 May 2017 – IEEE Ukraine Section

The 1938 Zenit radar test at the Laboratory of Electromagnetic Oscillations of the Ukrainian Institute of Physics and Technology was a major advance in the development of radar. Designed by Abram Slutskin, Alexander Usikov and Semion Braude, microwave scientists and magnetron pioneers, Zenit established the practicality of combining the pulsed method and a shorter wave band for determining precisely all three coordinates of airborne targets.

Bletchley Park, United Kingdom *Code-breaking at Bletchley Park during World War II, 1939–1945* #49

Dedicated 1 April 2003 – IEEE UK and Ireland Section

On this site during the 1939–45 World War, 12,000 men and women broke the German Lorenz and Enigma ciphers, as well as Japanese and Italian codes and ciphers. They used innovative mathematical analysis and were assisted by two computing machines developed here by teams led by Alan Turing: the electro-mechanical Bombe developed with Gordon Welchman, and the electronic Colossus designed by Tommy Flowers. These achievements greatly shortened the war, thereby saving countless lives.

London, England *Invention of holography, 1947* #133

Dedicated 12 June 2013 – IEEE UK and Ireland Section

In 1947 Dennis Gabor conceived the idea of wavefront reconstruction for improving the performance of the electron microscope. This became the basis for the invention of optical holography for three-dimensional imaging but implementation required coherent light sources and had to await the emergence of the laser some years later. Gabor was awarded the Nobel Prize for his invention in 1971.

Manchester, England *Manchester University “Baby” computer and its derivatives, 1948–1951* #225

Dedicated 21 June 2022 – IEEE UK and Ireland Section

At this site on 21 June 1948 the “Baby” became the first computer to execute a program stored in addressable read-write electronic memory. “Baby” validated Williams-Kilburn Tube random-access memories, later widely used, and led to the 1949 Manchester Mark I which pioneered index registers. In February 1951, Ferranti Ltd’s commercial derivative became the first electronic computer marketed as a standard product delivered to a customer.

Gotland, Sweden *Gotland high voltage direct current link, 1954* #176

Dedicated 15 May 2017 – IEEE Sweden Section

The Gotland HVDC Link was the world’s first commercial HVDC transmission link using the first submarine HVDC cable. It connected mainland Sweden to Gotland Island. The 96 km cable used mass-impregnated technology. The Swedish manufacturer ASEA produced the link for Vattenfall, the state-owned utility. The project used mercury-arc rectifiers for the 20 MW/100 kV HVDC converters, developed by an ASEA-Vattenfall team led by Dr. Uno Lamm.

Rehovot, Israel *WEIZAC computer, 1955* #69

Dedicated 5 December 2006 – IEEE Israel Section

The Weizmann Institute of Science in Rehovot, Israel, built the Weizmann Automatic Computer (WEIZAC) during 1954–1955 with the scientific vision of Chaim Pekeris and the engineering leadership of Gerald Estrin. The WEIZAC was based on drawings from the IAS computer at Princeton University and built with much ingenuity. The machine was the first digital electronic computer constructed in the Middle East and it became an indispensable scientific computing resource for many scientists and engineers worldwide.

Oban, Scotland *The first submarine transatlantic telephone cable system (TAT-1), 1956* #70

Dedicated 24 September 2006 – IEEE UK and Ireland Section

Global telephone communications using submarine cables began on 25 September 1956, when the first transatlantic undersea telephone system, TAT-1, went into service. This site is the eastern terminal of the transatlantic

cable that stretched west to Clarenville, Newfoundland. TAT-1 was a great technological achievement providing unparalleled reliability with fragile components in hostile environments. It was made possible through the efforts of engineers at AT&T Bell Laboratories and British Post Office. The system operated until 1978.

Manchester, England *Atlas computer and the invention of virtual memory, 1957–1962* #226

Dedicated 21 June 2022 – IEEE UK and Ireland Section

The Atlas computer was designed and built in this building by Tom Kilburn and a joint team of the University of Manchester and Ferranti Ltd. The most significant new feature of Atlas was the invention of virtual memory, allowing memories of different speeds and capacities to act as a single large fast memory separately available to multiple users. Virtual memory became a standard feature of general-purpose computers.

Laufenburg, Switzerland *Star of Laufenburg interconnection, 1958* #100

Dedicated 18 August 2010 – IEEE Switzerland Section

This is the original location of the electric-power interconnection of three countries: Switzerland, Germany and France. The Union for Production and Transmission of Electricity (now UCTE) was formed to manage this interconnection. This installation pioneered international connections, and technical and political cooperation for European integration. UCTE coordinated one of the largest synchronously connected power networks serving almost all of continental Europe.

Oslo, Norway *Object-oriented programming, 1961–1967* #181

Dedicated 27 September 2017 – IEEE Norway Section

Ole-Johan Dahl and Kristen Nygaard created the Simula programming languages in the 1960s at the Norwegian Computer Center. They introduced a new way of modeling and simulating complex tasks. Object-oriented programming is now dominant in systems development. It is an integral part of computer science curricula, as are languages built on object-oriented programming concepts, such as Smalltalk, C++, Java, and Python.

Goonhilly Downs, Cornwall, England *First transatlantic television signal via satellite, 1962* #44

Dedicated 1 July 2002 – IEEE UK and Ireland Section

On 11 July 1962 this site transmitted the first live television signal across the Atlantic from Europe to the USA, via TELSTAR. This Satellite Earth Station was designed and built by the British Post Office Engineering Department. Known as ‘Arthur’ (of “Knights of the Round Table” fame), its open-dish design became a model for satellite television earth stations throughout the world.

This Milestone is jointly with the one in Pleumeur-Bodou, France.

Pleumeur-Bodou, France *First transatlantic reception of a television signal via satellite, 1962* #44

Dedicated 1 July 2002 – IEEE France Section

On 11 July 1962 this site received the first transatlantic transmission of a TV signal from a twin station in Andover, Maine, USA via the TELSTAR satellite. The success of TELSTAR and the earth stations, the first built for active satellite communications, illustrated the potential of a future world-wide satellite system to provide communications between continents.

This Milestone is jointly with the one in Goonhilly Downs, Cornwall, England.

Neuchâtel, Switzerland *Pioneering work on the quartz electronic wristwatch, 1962–1967* #45

Dedicated 28 September 2002 – IEEE Switzerland Section

A key milestone in development of the quartz electronic wristwatch in Switzerland was the creation in 1962 of the Centre Electronique Horloger of Neuchâtel. The Centre produced the first prototypes incorporating dedicated integrated circuits that set new timekeeping performance records at the International Chronometric Competition held at this observatory in 1967. Since then quartz watches, with hundreds of millions of units produced, became an extremely successful electronic system.

Milan, Italy *Dadda’s multiplier, 1965* #170

Dedicated 29 September 2016 – IEEE Italy Section

Luigi Dadda published the first description of the optimized scheme, subsequently called a Dadda Tree, for a digital circuit to compute the multiplication of unsigned fixed-point numbers in binary arithmetic. This circuit

allowed the arithmetic units of microprocessor-based computers to execute complex arithmetic operations with a performance/cost ratio unequaled at that time. His research and teaching pioneered computer engineering in Italy.

Geneva, Switzerland *CERN experimental instrumentation, 1968* #63

Dedicated 26 September 2005 – IEEE France Section, endorsed by the IEEE Switzerland Section

At CERN laboratories the invention of multiple-wire proportional chambers and drift chambers revolutionized the domain of electronic particle detectors, leading to new research on the constitution of matter. The development of unique electrical and electronic devices made possible the major high-energy physics experiments which have been recognized worldwide.

Cheltenham, England *Invention of public key cryptography, 1969–1975* #103

Dedicated 5 October 2010 – IEEE UK and Ireland Section

At GCHQ, by 1975 James Ellis had proved that a symmetric secret-key system is unnecessary and Clifford Cocks with Malcolm Williamson showed how such ‘public-key cryptography’ could be achieved. Until then it was believed that secure communication was impossible without exchange of a secret key, with key distribution a major impediment. With these discoveries the essential principles were known but were kept secret until 1997.

The milestone plaque may be viewed at Government Communications Headquarters (GCHQ), Cheltenham, England. The site is a secure communications station, but the main entrance area leading to the main building from the outside is public.

Hayes, England *First computerized tomography (CT) X-ray scanner, 1971* #231

Dedicated 26 October 2022 – IEEE UK and Ireland Section

On 1 October 1971, a team at the EMI Research Laboratories located on this site produced an image of a patient’s brain, using the world’s first clinical X-ray computerized tomography scanner, based on the patented inventions of Godfrey Hounsfield. The practical realization of high-resolution X-ray images of internal structures of the human body marked the beginning of a new era in clinical medicine.

Cascina, Pisa, Italy *Gravitational-wave antenna, 1972–1989* #212

Dedicated 3 February 2021 – IEEE Italy Section

Initially developed from 1972 to 1989, the gravitational-wave antenna enabled detection of ripples in spacetime propagating at the speed of light, as predicted by Albert Einstein’s 1916 Theory of General Relativity. Construction of the Virgo Gravitational-Wave Observatory commenced in 1997. In 2017, Virgo and two antennas located in the US launched the era of Multi-Messenger Astronomy with the coordinated detection of gravitational waves from a binary neutron star merger.

Haifa, Israel *Lempel-Ziv data compression algorithm, 1977* #57

Dedicated 1 September 2004 – IEEE Israel Section

The data compression algorithm developed at this site in 1977 by Abraham Lempel and Jacob Ziv became a basis for enabling data transmission via the internet in an efficient way. It contributed significantly in making the internet a global communications medium.

Eindhoven, Netherlands *Compact Disc audio player, 1979* #83

Dedicated 6 March 2009 – IEEE Benelux Section

On 8 March 1979, N.V. Philips’ Gloeilampenfabrieken demonstrated for the international press a Compact Disc Audio Player. The demonstration showed that it is possible by using digital optical recording and playback to reproduce audio signals with superb stereo quality. This research at Philips established the technical standard for digital optical recording systems.

Dundee, Scotland *Amorphous silicon thin film field-effect transistor switches for liquid crystal displays, 1979* #187

Dedicated 5 April 2018 – IEEE UK and Ireland Section

A research team in the Physics department of Dundee University, Scotland demonstrated in 1979 that amorphous silicon field-effect transistors were able to switch liquid crystal arrays. Other semiconductor thin film materials had been found to be unsuitable for deposition on large area substrates. The invention laid the foundation for the commercial development of flat panel television displays.

-
- Eynsham, England** *Active shielding of superconducting magnets for MRI, 1984–1989* #224
 Dedicated 17 June 2022 – IEEE UK and Ireland Section
 At this site, the first actively shielded superconducting magnets for diagnostic Magnetic Resonance Imaging (MRI) use were conceived, designed, and produced. Active shielding reduced the size, weight, and installed cost of MRI systems, allowing them to be more easily transported and advantageously located, thereby benefiting advanced medical diagnosis worldwide.
- Grenoble, France** *MPEG Multimedia Integrated Circuits, 1984–1993* #237
 Dedicated 28 September 2023 – IEEE France Section
 Beginning in 1984, Thomson Semiconducteurs (now STMicroelectronics) developed multimedia integrated circuits, which accelerated Moving Picture Experts Group (MPEG) standards. By 1993, MPEG-2 integrated decoders – including innovative discrete cosine transform (developed jointly with ENST, now Telecom ParisTech), bitstream decompression, on-the-fly motion compensation, and display unit – were announced in one silicon die: the STi3500. Subsequent MPEG-2 worldwide adoption made compressed full-motion video and audio inexpensive and available for everyday use.
- Agrate Brianza, Milano, Italy** *Multiple silicon technologies on a chip, 1985* #217
 Dedicated 18 May 2021 – IEEE Italy Section
 SGS (now STMicroelectronics) pioneered the super-integrated silicon-gate process combining Bipolar, CMOS and DMOS (BCD) transistors in single chips for complex, power-demanding applications. The first integrated circuit, named L6202, was capable of controlling up to 60V–5A at 300 kHz. Subsequent automotive, computer, and industrial applications extensively adopted this process technology, which enabled chip designers flexibly and reliably to combine power, analog and signal processing.
- Nieuwegein, Netherlands** *WaveLAN, precursor of Wi-Fi, 1987* #204
 Dedicated 29 October 2019 – IEEE Benelux Section
 In November 1987, a group of Dutch engineers in Nieuwegein demonstrated a method for significantly increasing the data rate achievable under new regulations that permitted license-exempt short-range wireless data communications in certain frequency bands. Their development of WaveLAN technology led directly to formation of the IEEE 802.11 Working Group for Wireless Local Area Networks and establishment of the now ubiquitous Wi-Fi industry.
- Skopje, North Macedonia** *First robotic control from human brain signals, 1988* #239
 Dedicated 10 October 2023 – IEEE North Macedonia Section
 In 1988, in the Laboratory of Intelligent Machines and Bioinformation Systems, human brain signals controlled the movement of a physical object (a robot) for the first time worldwide. This linked electroencephalogram (EEG) signals collected from a brain with robotics research, opening a new channel for communication between humans and machines. EEG-controlled devices (wheelchairs, exoskeletons, etc.) have benefitted numerous users and expanded technology’s role in modern society.
-
- Belgrade, Yugoslavia** Special Citation: *Nikola Tesla (1856–1943)*, Electrical Pioneer
 Dedicated October 2006 – IEEE Serbia and Montenegro Section
 On the 150th anniversary of his birth, the IEEE is pleased to recognize the seminal work of Nikola Tesla in the field of electrical engineering. Among his many accomplishments, those that stand out are his innovative contributions to the applications of polyphase current to electric power systems, his pioneering work with electromagnetic waves, and his experiments with very high voltages. The Tesla Museum in Beograd is to be commended for its successful efforts to preserve artifacts and documents related to Tesla and to make them accessible to scholars throughout the world.
- Paderborn, Germany** Special Citation: *Heinz Nixdorf MuseumsForum (1996 – present)*
 Dedicated 23 October 2021 – IEEE Germany Section
 One of the largest computer museums in the world, the Heinz Nixdorf MuseumsForum presents 5000 years of
-

computing history from the emergence of numbers and lettering circa 3000 B.C.E. to the modern digital age. Through presentations, workshops, seminars, and exhibitions, it has provided a broad audience with the insights and perspectives required to navigate a world that is increasingly shaped by digital technology.

9.3 Miscellaneous

- The Regional Activities Board (RAB) was established in 1969. At that time, four other boards already existed: Awards Board, Educational Activities Board, Publications Board, and Technical Activities Board. RAB is responsible for the geographically organized activities of the Institute, including those of the Regions, Councils, Sections, Chapters and Student Branches.

In the beginning, it was called the Sections Committee and was chaired by the Vice-President of the Institute. As a standing committee of the Board of Directors, the Regional Directors were members *ex officio*. Meeting twice a year was not enough, however, for the Regional Directors who also often met by themselves to discuss items. Thus, in March 1969, the Sections Committee was replaced by the Regional Activities Board.

The newly established Board had the same, as well as expanded, duties of the Sections Committee including: formulating and recommending policies, criteria and procedures to the Board of Directors or Executive Committee to ensure (1) the quality of programs for members in their respective locales; (2) constructive interaction among the locally organized IEEE units; and (3) adequate and responsible allocation of the Institute's volunteer and staff personnel and financial resources to support the Regions and their sub-units.

- Plans for a Region 8 Convention started in 1969 and resulted in EUROCON 71, the meeting for Professional Growth, Lausanne, Switzerland, 18–22 October 1971.
 - In the September 1971 issue of the IEEE Region 8 newsletter, names for Region 8 are solicited.
 - In 1981, more than 15 years after the foundation of the Region, member dues was increased by a Regional assessment of USD 7.00, to provide finances to maintain and increase Regional and Section activities. The decision for this increase was reached by the Region 8 Committee only after a great deal of discussion extending over two Committee meetings. The Committee agreed that the additional funds that will become available to Region 8, should be used in two ways: to provide additional member benefits and to enable the Region 8 Committee to maintain and improve cohesion and cooperation between Sections in the Region.
 - In December 1980, Dick C.J. Poortvliet was elected as the IEEE Secretary for 1981–1982. This was the first time that a member from Regions 8, 9 or 10 was part of the IEEE Executive Committee. Other past Region 8 Directors that were elected in this position are Walter Proebster (1985), Hugo Ruechardt (1989), Karsten Drangeid (1992), Charles Turner (1995), Maurice Papo (1999), Levent Onural (2003), and Marko Delimar (2013).
 - Pre-meetings (OpCom and appointed members) were introduced by Walter E. Proebster when he was Director in 1981–1982.
 - Starting with the Region 8 Committee meeting in June 1982, an introduction training to new volunteers is provided prior to the start of the meeting. The first training was done by Robert C. Winton, based on his loose-leaf binder entitled “A Guide to the IEEE for Members of the Region 8 Committee.”
 - Regional Subcommittees were introduced in 1983, to relieve the heavy work load of the Regional Appointed Members.
 - A Region 8 Student Activities Committee new style was established during the 44th Region 8 Committee meeting in Herzlia, Israel, 24–25 March 1985. The first committee consisted of Dick C.J. Poortvliet, Chair; André Vander Vorst, Past Chair; A.J.M. (Lex) van Gijssel and Philippe C. Siraut, Region 8 Centennial Students (!).
 - The IEEE Brussels Office was originally created through a decision by the Computer Society in 1986, to provide a local contact point in Europe for the sale of publications, and to meet the needs of members in the Region. Other functions included organization at events, information desks at conferences, the interchange of material with national societies, and new membership applications. In 1991 the office activities were widened to include services to all IEEE members, and not only the Computer Society. (Minutes 1992.1)
- From 13 December 1993 the IEEE Brussels office became a full IEEE Operations Center, handling membership services, customer services, membership development and member queries; and eventually also deal with membership renewals and conference services. (Minutes 1993.2)

- The 55th IEEE Region 8 Committee meeting was the first one outside Region 8. It was held in Toronto, Canada, 2–3 October 1990, in conjunction with Sections Congress.
- A Region 8 Section Volunteer Award was established in 1994. First recipients: Terence H. Oxley (1994), Wieslaw J. Seruga (1995), Frédérique Vallée (1996).
- The first Volunteer Training, prior to the start of the Spring Region 8 Committee meeting, was held in Dublin in 1995.
- Robert C. Winton was made Region 8 Honorary Member at the Region 8 Committee meeting in Barcelona, 1995.
- Region 8 was the first Region to have a web page, even before IEEE. It was set up in 1995 and was hosted at Bilkent University, Ankara, Turkiye, with URL <http://www.ee.bilkent.edu.tr:8080/>.
- Region 8 News started a monthly electronic news bulletin in September 1998.
- The first-ever IEEE Executive Committee meeting outside the Americas took place in London, UK, 9 June 1979. The second one took place in Öhringen, Germany, 28 March 1980; the third one in Copenhagen, Denmark, 18 June 1982.
- In November 2000, Maurice Papo was elected as the IEEE Vice President, Regional Activities for 2001. This was the first time that a member from Region 8 held this position. The second past Region 8 Director that was elected in this position is Martin Bastiaans in 2018, after having served as the first IEEE Vice President-Elect, Member and Geographic Activities in 2017. Regional Activities was renamed to Member and Geographic Activities on 1 January 2008.

10 History papers presented at HISTELCON 2012

Four history papers were presented at HISTELCON 2012 in Pavia, Italy, 5–7 September 2012, which are reprinted here with permission:

1. Martin J. Bastiaans, “Researching the roots of IEEE Region 8”
<http://dx.doi.org/10.1109/HISTELCON.2012.6487560>
8 pages, not numbered.
2. Jean D. Lebel, “Setting up the basis for Region 8”
<http://dx.doi.org/10.1109/HISTELCON.2012.6487569>
3 pages, not numbered.
3. Jacob Baal–Schem, “Conferences, technical societies and development – A history of synergy”
<http://dx.doi.org/10.1109/HISTELCON.2012.6487558>
3 pages, not numbered.
4. Anthony C. Davies, “. . . Go East, Region 8, Go East . . .”
<http://dx.doi.org/10.1109/HISTELCON.2012.6487565>
6 pages, not numbered.

The papers by Jean D. Lebel and Jacob Baal-Schem as they appear in IEEEExplore are NOT the final versions that have been submitted to the conference organizers. The two papers that are included in this document are the actual final versions.

Researching the Roots of IEEE Region 8

Martin J. Bastiaans, IEEE Region 8 Director-Elect, Past IEEE Benelux Section Chair

Eindhoven University of Technology, Department of Electrical Engineering,
P.O. Box 513, 5600 MB Eindhoven, Netherlands

Abstract — This paper describes the preliminary steps towards the foundation and the early history of IRE Region 9 / IEEE Region 8. The information has been gathered mainly from the archives of the IEEE Benelux Section.

Index Terms — IEEE History, IEEE Region 8, IRE Region 9.

I. INTRODUCTION

All indented parts are transcriptions of documents that are available in the IEEE Benelux Section archives or in some other locations.

The research in the Benelux Section archives led to the following important dates with respect to the foundation and the early years of our Region.

- **14 February 1962** – informal meeting of the Inter-Sectional Committee, Europe – 4 Sections: Benelux, France, Geneva, Italy
- **6 March 1962** – sending of a petition by the Benelux Section to the IRE Board of Directors to form a new Region, with its territory based on the European Broadcasting Area defined in the Radio Regulations of the International Telecommunication Union; the European Broadcasting Area includes the Western part of the USSR and the territories bordering on the Mediterranean; see Fig. 1
- **24 April 1962** – approval of the new Region by the IRE Executive Committee; see Fig. 2
- **24 May 1962** – approval of the new Region by the IRE Board of Directors
- **6 June 1962** – inaugural meeting of the IRE Region 9 Committee – 12 attendees – 6 Sections: Benelux, Egypt (not present), France, Geneva, Israel, Italy
- **22 October 1962** – second IRE Region 9 Committee meeting – 7 Sections; new Section: United Kingdom & Eire
- **8 January 1963** – re-approval by the IEEE Board of Directors (after the merger of IRE and AIEE): renaming of IRE Region 9 to IEEE Region 8
- **22 April 1963** – first IEEE Region 8 Committee meeting – 8 Sections; new Section: Norway
- **1 January 1970** – Greenland was added to Region 8, and all the countries that were partly in Region 8 (the USSR and countries in North Africa) are now considered to belong completely to Region 8; see Fig. 3.
- **1 January 1981** – The rest of Africa was added to Region 8; see Fig. 4.

II. INFORMATION TAKEN FROM THE BENELUX SECTION ARCHIVES

The idea for an IRE Region Europe arose at the end of 1959 in the Benelux Section, especially on the initiative of Bruce B. Barrow,¹ at that time the Section's first Secretary/Treasurer (till August 1961, but remaining a member of the Section's Executive Committee until his returning to the USA in summer 1962). The idea was actually brought up when Lloyd V. Berkner, a member of the IRE Board of Directors, attended the first (!) Benelux Section meeting on 3 October 1959. In a subsequent letter to Lloyd Berkner dated 4 October 1959, Bruce Barrow states:

We believe it would be very helpful to us to have Europe (including Russia) designated as Region 9. Boundaries might be drawn to include Egypt and Israel Sections. Such a step would give Europe a Regional Director, and might accelerate the formation of other European Sections, with whom we could effectively cooperate.

However, at that time, the IRE Board of Directors decided that the time was not yet ripe.

One year later, the idea was brought to the attention of the IRE President, Ronald L. McFarlan, in a letter by Bruce Barrow, dated 17 October 1960.

Secondly, I wonder if you would care to bring up the question of establishing Region 9 with the Board of Directors. I know that it was discussed about a year ago, and that the Board decided the time was not yet ripe. Since you have left here, I have given the question a good deal of thought, and would like to argue that the time is now ripe, or at any rate that it will be by the time the necessary preliminaries are taken care of.

At the same time, in a letter to Lloyd Berkner, dated 18 October 1960, Bruce Barrow writes:

I am pushing Dr. McFarlan, quite informally, to bring up once more the question of establishing Region 9 in Europe, so you may hear something of this in one of your next meetings. My points in favor of such a move are, briefly, as follows:

- 1) 1961 would be the year to elect the regional director of an odd-numbered region. Even if

¹From 1958 till 1961 on leave with SHAPE Air Defence Technical Center, The Hague, Netherlands, where he was studying improved methods of transmitting digital data over fading radio paths; see [1, page 2].

the Board moved now, he would not take office until Jan. 1962.

- 2) Europe has roughly 1500 IRE members, far more than Canada had when it was given regional status.
- 3) We need a region to promote the orderly development of sections in Europe. Our problems are not the same as those of other sections.
- 4) The Region would be appropriate for the coming united Europe (see editorial).²
- 5) We need the Educational Committee of a region.

In his answer of 10 November 1960, Ronald McFarlan expressed his sympathy with the idea of a 'European Region' and promised to discuss the issue with the IRE Executive Committee.

Support was then sought from the Italy Section (established, like the Benelux Section, 13 May 1959) by sending a letter on 28 November 1960, with a positive reply on 22 December 1960, and from the Geneva Section (established 13 December 1960). There was a general feeling not to take any formal step towards the IRE Executive Committee until a France Section (established 17 October 1961) would have been formed. Since this took more time than expected, the Benelux Section sent a formal petition to the IRE Executive Committee on 3 March 1961, followed by a similar petition from the Italy Section on 16 March 1961 and one from the Geneva Section, as well. The text of the petition reads as follows:

PETITION

To the Executive Committee of the Institute of Radio Engineers, Inc.

From the Executive Committee of the Benelux Section of the IRE:

WHEREAS

- there are at present more than 1500 IRE members in western Europe, as well as three active IRE Sections;
- we believe these members and Sections to be entitled to direct representation by a European member on the IRE Board of Directors;
- there is an increasing and frequently expressed desire on the part of the European IRE members for international meetings and opportunities for professional contacts;
- there is similarly a desire among members in several countries to establish new IRE Sections;
- the presence in Europe of a representative of the IRE Board of Directors would help to ensure that future expansion of European IRE activities would be carried out in an orderly

manner, to the benefit of both the IRE members and the various European radio and electrical engineering societies;

WE HEREBY PETITION

the Executive Committee of the IRE, in the name of the Executive Committee of the Benelux Section,

- to go on record as favoring the establishment without delay of IRE Region 9 in western Europe;
- to draft the changes in the IRE Bylaws necessary to effect the establishment of this Region and to present these changes to the Board of Directors for action at their meeting in May 1961;
- to fix the composition of a provisional Regional Committee;
- and to authorize a meeting of this provisional Regional Committee for April 1961 for the purpose of nominating one or more candidates for the office of Regional Delegate-Regional Director as provided for in the IRE Bylaws, and of conducting such other business as may seem desirable.

The Hague, 3 March 1961

H. Rinia, Chairman
The Benelux Section of the IRE

B.B. Barrow, Secretary-Treasurer
The Benelux Section of the IRE
Postbus 174, The Hague, Netherlands

In the mean time, on 4 January 1961, IRE had formed a special committee (the IRE International Activities Committee) to study the international aspects of the IRE, which was chaired by IRE's former president Ronald L. McFarlan and with Herre Rinia, the first Benelux Section Chair (until 1962), as one of its members. In March 1961, after having received the petitions mentioned earlier, this committee decided to visit various European countries (in particular UK, France, Netherlands, Norway, Sweden, Denmark, Germany, Switzerland, Italy) at the end of June 1961,

"... to find out whether local societies would welcome such a region and, if so, to try and smooth over any stumbling blocks and establish cooperation."

(Quotation taken from a letter by Herre Rinia to Bruce Barrow, dated 28 March 1961). See also a partial transcript of the letter of 21 April 1961 by Ronald McFarlan to Bruce Barrow below:

George Bailey's letter of April 19, 1961 to you regarding the Executive Committee action on the petition for the formation of Region 9 in Western Europe has just come to my attention. Since it was upon my recommendation that the Executive Committee deferred action on the petition I owe you an explanation.

²Bruce Barrow refers to a guest editorial for the March issue of the Transactions on Communication Systems, in which he would like to write on the expansion of the IRE activity in Europe; see [1, page 3].

Starting in London on June 19th the IRE Ad Hoc Committee for Activities Outside Existing Regions will visit in sequence England, France, the Netherlands, Norway, Sweden, Denmark, Germany, Switzerland and Italy. This committee comprises, in addition to myself as Chairman, E. Finley Carter, John T. Henderson, Herre Rinia and Ernst Weber. Among the matters to be discussed will be the formation of new IRE Sections and their areas, Professional Group activities, relations with the national societies of these countries, and so forth. It has been my feeling that formation of Region 9 should await the results of the forthcoming European discussions of this committee.

...

Let me also say, if I may, that I personally favor the formation of a Region 9 in Western Europe after the necessary exploratory work has been accomplished. This is one of the topics that will be high on the agenda when we meet in June.

Unfortunately, the IRE Executive Committee was not yet convinced of the desirability of establishing a new Region before the end of 1961. This was caused by the upcoming merger between IRE and AIEE, which led the IRE President Lloyd V. Berkner to the statement in December 1961 "...that this matter should be postponed until the negotiations with AIEE are completed." See a partial transcript of the letter of 20 December 1961 by Lloyd Berkner to Bruce Barrow below:

The idea of a quick formation of an IRE Region 9 at this time represents a great many pluses and minuses. In the balance, it would be my judgement that this matter should be postponed until the negotiations with AIEE are completed, since I believe it highly probable that a new society would recognize the need for Region 9, and it could be organized as a part of the shift to a new society.

Prior to a meeting of the IRE International Activities Committee in New York on 27 March 1962, Herre Rinia, member of that committee, called for an informal meeting in Geneva on 14 February 1962 of representatives of the four existing IRE Sections in Europe (Benelux, France, Geneva and Italy) and some people from countries where the forming of a Section was foreseen: Germany (established 12 July 1963; invitation sent to Prof. W.J. Kleen, Munich) and Sweden (established 29 March 1965; invitation sent to Dr. C.E. Granqvist, Stockholm). One of the motions that came out of this meeting was that the new region should consist of all of Greater Europe (and *only* Greater Europe, thus explicitly excluding such territories as South America and the Far East), where Greater Europe is to correspond by definition to the European Broadcasting Area, defined in the Radio Regulations of the ITU, 1959 (Article 5, Nos. 126, 131 and 133): bounded on the West by the Western boundary of Region 1, on the East by the meridian 40° East of Greenwich and on the South by the parallel 30° North so as to include the western part

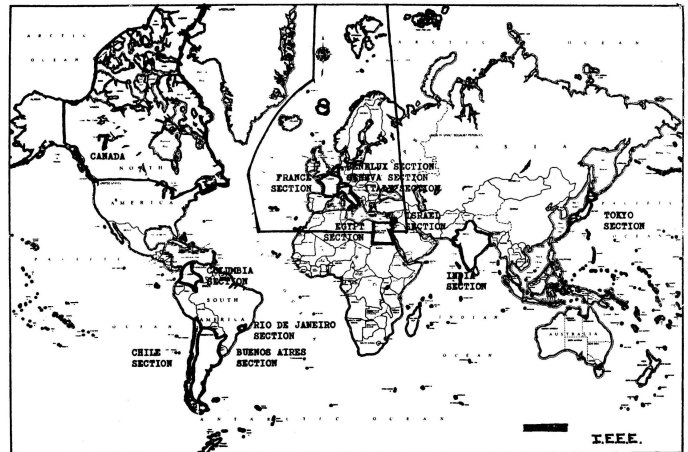


Figure 1. IEEE Region 8 as defined on 8 January 1963; it was defined exactly the same as IRE Region 9. The sketch is taken from the document "Recommendations Regarding IEEE Regions and Districts," prepared by Bradley Cozzens, AIEE, and Walter E. Peterson, IRE, revised 11 July 1962 [2]. This document formed the basis for the merger of IRE and AIEE to IEEE. The boundaries of IRE Region 9 were not changed at the time of the merger: "IEEE Region VIII consists of IRE Region IX plus AIEE and IRE members in the area."

of the USSR and the territories bordering the Mediterranean, with the exception of the parts of Arabia and Saudi-Arabia included in this sector. In addition, Iraq is included in the European Broadcasting Area. See Fig. 1.

A final petition to establish such a region (see below) was then sent to the IRE Executive Committee by the Benelux Section on 6 March 1962, and the Sections in France, Geneva and Italy were asked to do the same.

Board of Directors of the Institute of Radio Engineers
1 East 79 Street
New York 21, N.Y.
U.S.A.

Dear Sirs,

The Executive Committee of the Benelux Section wishes to ratify the action taken by its representatives at the meeting of the I.R.E. Intersectional Committee, Europe, held on 14 February 1962 in Geneva to discuss matters of interest to the European I.R.E. Sections and to report to the I.R.E. Committee on International Activities. It, therefore, submits the following

PETITION.

We, the undersigned, officers and executive Committee members of the Benelux Section of the Institute of Radio Engineers, hereby petition the Board of Directors of the Institute of Radio Engineers to establish a Region that will compass the territory of Greater Europe.

Because the purpose of such a Region would be to provide representation of the European I.R.E.

members on the Board of Directors and to coordinate I.R.E. activities in Europe we request that territories in the Far East and in South America not be included in the new Region. We suggest that the territory of the new Region be based on the European Broadcasting Area defined in the Radio Regulations of the I.T.U. which area produced a definition of Europe that has proved practical and that has been internationally agreed to for certain telecommunication purposes. The European Broadcasting Area includes the Western part of the U.S.S.R. and the territories bordering on the Mediterranean.

H. Rinia, Chairman
 G.J. Siezen, Secretary-Treasurer
 B.B. Barrow
 W. Metselaar
 H.P. Williams
 H.R. van Nauta Lemke
 C.B. Broersma

As a result, the IRE Executive Committee approved the new region, Region 9, on 24 April 1962, and the IRE Board of Directors gave its final approval on 24 May 1962.

The inaugural meeting took place in Geneva on Wednesday 6 June 1962, with invitations sent to 6 Sections: Benelux, Egypt (established 8 September 1955), France, Geneva, Israel (established 5 October 1954) and Italy. The first meeting was attended by 12 people: H. Rinia, G.J. Siezen, H.P. Williams, B.B. Barrow (Benelux), J. Lebel (France), J.H. Gayer, W. Gerber, W. Baumgarten (Geneva), E.H. Frei (Israel), G.P. Tarchini, V. Svelto (representing E. Gatti, Italy), and R.L. McFarlan (IRE Headquarters); Egypt was not represented. Herre Rinia (see picture) was elected as Region 9 Director, and he appointed E. Gatti as Vice Chair and J.H. Gayer as Secretary/Treasurer. The second meeting, with UK & Eire as a new Section (established 10 July 1962), took place on Monday 22 October 1962, again in Geneva.



The next meeting was held on Monday 22 April 1963, being the first meeting after the merger of IRE and AIEE to IEEE, and the renaming of IRE Region 9 to IEEE Region 8; during this meeting, Norway was welcomed as a new Section (established 28 March 1963). The second meeting of Region 8, with the Federal Republic of Germany as a new Section (established 12 July 1963), was held on Monday 4 November 1963. The third meeting took place on Monday 27 April 1964, during which Jean D. Lebel was nominated as the next Region 8 Director (and as such elected later in 1964). The fourth meeting was held on Monday 26 October 1964. The fifth meeting took place on Monday 26 April 1965, with Sweden as a new Section (established 29 March 1965). The sixth meeting was held on Tuesday 7 September 1965. Note that all these meetings took place at the ITU (International Telecommunication Union) Building, Place des Nations, Geneva, Switzerland.

III. IRE REGION IN EUROPE – BRUCE B. BARROW

The transcript below is taken from the article “The Benelux Section and Early IRE/IEEE Activity in Europe” by Jan Biemond and Bruce B. Barrow, presented at the 2009 IEEE Conference on the History of Technical Societies, Philadelphia, PA, 5–7 August 2009. The article is available in IEEEExplore at <http://dx.doi.org/10.1109/HTS.2009.5337847> [3, Section III].

In 1960 the Executive Committee of the Benelux Section had already begun to consider the idea of asking the IRE to establish a formal “region” in Europe. The regional structure would give the European Sections an opportunity to interact with each other and, more importantly, would permit the members in the region to elect a representative to the IRE Board of Directors. The idea was discussed with senior IRE officers, and on December 27, 1961, Barrow sent a letter to Dr. McFarlan, then Chairman of the IRE International Activities Committee, requesting authorization for himself to initiate exploratory contacts with other newly founded European sections and requesting authorization for Mr. Rinia to convene an inter-sectional meeting to discuss IRE activity in Europe. Such a meeting was held in Geneva on February 14, 1962, at the headquarters of the International Telecommunications Union. It was attended by representatives of the Benelux, Geneva, Italy, and France Sections, and an IRE member from Germany, where formation of a section was being considered. Following this meeting, on March 6th, the Benelux section formally petitioned the Board of Directors of the IRE “to establish a Region that will compass the territory of Greater Europe” and suggesting “that the territory of the new Region be based on the European Broadcasting Area defined in the Radio Regulations of the I.T.U. which area produced a definition of Europe that has proved practical and that has been internationally agreed to for certain telecommunication purposes. The European Broadcasting Area includes the western part of the U.S.S.R. and the territories bordering on the Mediterranean.” On Rinia’s request, the other Sections submitted similar petitions.

On May 9,³ 1962 the IRE Board of Directors gave formal approval of Region 9, with boundaries closely following the recommendations of the sections. Note that inclusion of the Mediterranean area brought in the sections in Israel and Egypt. Region 9 was born, and Rinia was appointed its first Director.

It must not be assumed that the expansion of IRE activity into Europe took place without opposition. Although IRE members welcomed the new opportunities for sharing information and other professional contact, a number of the established engineering societies felt threatened. In 1948 a “Conference of Representatives from the Engineering Societies of Western Europe and the United States of America” had been held in London. This conference, which became known by the acronym EUSEC, was “of the opinion that international cooperation between professional engineers by direct contact between recognized national Societies is to be desired.” One

³This is apparently an error and should read May 24.

of their explicit recommendations was, "That the formation by one Constituent Society of a branch in the territory of another is undesirable except by mutual agreement."

The engineering societies of Germany and Denmark, as well as the IEE in the United Kingdom, all members of EUSEC, formally expressed displeasure with the expansion of IRE section activity in Europe. One of the aims of EUSEC was that "no participating Society will initiate any action within the country of another without first informing the participating Society of that country and obtaining its co-operation."

The IRE, in all its European activities, had sincerely sought the cooperation of the local societies, but the idea that a national society could veto the formation of an IRE section was quite unacceptable, and Rinia had to engage in careful diplomacy. With the merger pending, the situation was complicated by the fact that, although the IRE was not a participant in EUSEC, the AIEE was. The Benelux Section objected strongly to bringing the merged society into EUSEC, and this matter became one of the agenda items in the merger discussions.

IV. A REGION'S 'BIRTH CERTIFICATE'

Figure 2 shows a copy of a message from Emily Sirjane, IRE Office manager, to the IRE Board of Directors and Section and Subsection Officers, which can be considered as a 'Birth Certificate' of IRE Region 9. It is interesting to note that this 'Birth Certificate' is at the same time a 'Birth Certificate' of the United Kingdom Section. The second interesting point is that the IRE Office manager refers to the approval of a new Region by the IRE Executive Committee (on 24 April 1962) and not to the approval by the IRE Board of Directors (on 24 May 1962), although the memorandum itself was dated after the Board has reached its decision. This might lead to the conclusion that IRE considered 24 April 1962 as the date at which the new Region was formed.

V. THE START OF REGION 8 AND ITS SECTIONS – ROBERT C. WINTON

After the merger of the IRE and the AIEE to IEEE on 1 January 1963, the IEEE Board of Directors renamed the former IRE Region 9 into the new IEEE Region 8 on 8 January 1963. A partial transcript of "The Start of Region 8 and its Sections" as it appeared in the "Region 8 Centennial Review" [4] reads as follows:

Region 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 U.S.A., Canada was Region 8, and there were no Regions in other countries, although Sections existed. However, on 12 May 1962,⁴ shortly before the merger, the IRE created Region 9 consisting of

⁴This is an error; the date should read 24 May 1962.

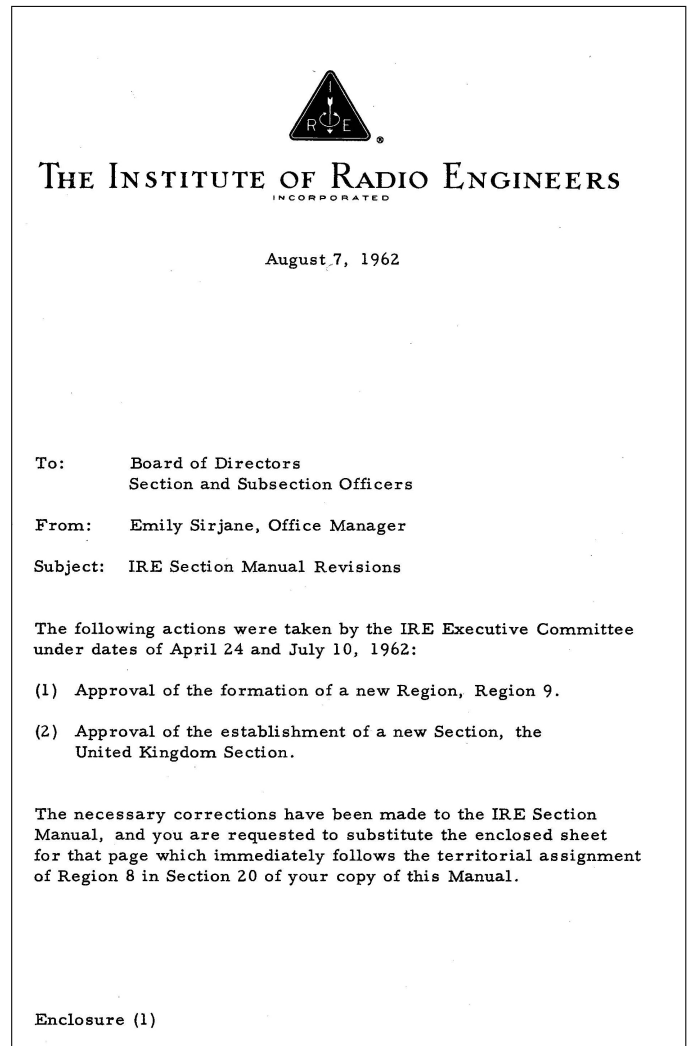


Figure 2. IRE Region 9 Birth Certificate.

twelve Sections in other countries, seven of these Sections being in Europe.⁵

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;⁶ 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.

⁵This is an error; Region 9 was restricted to Greater Europe with six IRE Sections: Benelux, Egypt, France, Geneva, Italy, Israel. The IRE Sections Buenos Aires, Chile, Colombia, India, Rio de Janeiro and Tokyo were located in the 'Rest of the World,' i.e., outside Regions 1 through 9. The United Kingdom Section was not founded yet.

⁶This is questionable; it neglects the fact that our Region started as an IRE Region.

VI. IRE/AIEE MERGER – BRUCE B. BARROW

The transcript below is taken from the article “The Benelux Section and Early IRE/IEEE Activity in Europe” by Jan Biemond and Bruce B. Barrow, presented at the 2009 IEEE Conference on the History of Technical Societies, Philadelphia, PA, 5–7 August 2009. The article is available in IEEEExplore at <http://dx.doi.org/10.1109/HTS.2009.5337847> [3, Section IV].

The Institute of Electrical and Electronics Engineers (IEEE) was formed on January 1, 1963, by the merger of the Institute of Radio Engineers (IRE, founded 1912) and the American Institute of Electrical Engineers (AIEE, founded 1884).

Notable Presidents of IEEE and its founding organizations include Elihu Thomson (AIEE, 1889-1890), Alexander Graham Bell (AIEE, 1891-1892), Charles Proteus Steinmetz (AIEE, 1901-1902), Lee De Forest (IRE, 1930), Frederick E. Terman (IRE, 1941), William R. Hewlett (IRE, 1954), and Ernst Weber (IRE, 1959; IEEE, 1963).

Fundamental characteristics of the merged society were taken from the IRE, which, unlike the AIEE, was a transnational society with sections outside the USA. 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 USA was reduced to six; Canada became Region 7; Europe, the Middle East, and North Africa became Region 8. On January 8, 1963, at the first IEEE Board meeting in New York, Rinia was appointed first Director of IEEE Region 8 (formerly IRE Region 9). Since no AIEE sections had existed in Europe, the section structure of IRE Region 9 was adopted for IEEE Region 8, and the AIEE members were automatically included in the IEEE Sections. What follows is a short reflection on the merger, the international policy of the IEEE and the concerns raised by European Societies about the organization of IEEE Sections in European countries.

A. Reflection on the merger

The major interests of the AIEE were wire communications (telegraph and telephony), machinery, and light and power systems. The IRE concerned mostly radio engineering, and was formed from two smaller organizations, the Society of Wireless and Telegraph Engineers and the Wireless Institute. With the rise of electronics in the 1930s, electronics engineers usually became members of the IRE, but the applications of electron tube technology became so extensive that the technical boundaries differentiating the IRE and the AIEE became blurred. After World War II the two organizations became increasingly competitive. In 1957 the IRE, with 55,500 members, was the larger organization, and it had more appeal to students and young electrical engineers. Negotiations about a merger started that year, and in 1961 the leadership of both the IRE and the AIEE resolved to consolidate the two organizations. In 1962 the IRE had 96,500 members, and the AIEE 57,000.

In the summer of 1962, having successfully defended his dissertation, Barrow returned to the U.S., where he had a small

part in the discussions that were taking place as details of the merger were worked out. The President of the AIEE at that time was Dr. B. Richard Teare, Dean of the College of Engineering and Science at Carnegie Institute of Technology (now Carnegie Mellon University). Teare had been Barrow’s professor when Barrow was an undergraduate, and the two felt warm mutual respect.

B. Some diplomacy

Late in September, Barrow traveled to Pittsburgh and had an opportunity to talk at length with Dr. Teare. Following are quotes from the letter-report that Barrow sent to Rinia. “The central topic of our conversation, which lasted some five hours, was international policy of the IEEE, and we concentrated specifically on the attitudes that would be brought into the IEEE from the AIEE. Dr. Teare emphasized that he could not speak for the AIEE Board, nor for the 14-man committee that is now implementing the merger. . . . He pointed out that the non-national character of IEEE is specified in the new constitution, and he defined ‘non-national’ as meaning that the activities of the new society would be carried out throughout the world, wherever IEEE members wanted such activities, and without regard to national boundaries.”

“Dr. Teare himself has thought a good deal about questions of international policy, partly because several of the secretaries of EUSEC societies have brought such questions to his attention. . . . Because of these contacts with the European societies he was very interested to hear something of our views.”

“I talked at great length (as usual), and emphasized that IRE relations with European societies are in general rather good. I also pointed out that each country, and each society, had to be considered individually, and I then said what I could about each individual problem. I pointed out the specific accord that had been reached with the SFER in France, and the proposals that had been discussed with . . . the VDE in Germany. I also told him what I knew of our difficulties and inhospitable reception in Denmark, and of the obstacles that certain of the EUSEC societies placed in the way of IRE Region 9. I emphasized that EUSEC societies were not the ones that represented the electronics profession in a number of countries, such as Belgium and France. . . .”

“The second point – the real point of contention – concerns the organization of IEEE sections in European countries. . . . I emphasized that the EUSEC societies interpreted [the EUSEC Memorandum of Organization] to mean that they had a right to veto activity by another society in their territory. . . . Dr. Teare agreed with me . . . that the IEEE must retain the *right* to organize sections anywhere in the world, and that IEEE members who petition in a responsible manner to form such sections must be able to expect an affirmative response from the IEEE Board. The IEEE has announced its intention of operating in the entire world, and it must be willing to support its members, wherever they live. On this all-important and fundamental principle, Dr. Teare agrees with us completely. He is, however, very concerned that every effort be made to

conciliate the various national societies, and he very much wishes to move carefully enough, and tactfully enough, to avoid open ruptures with the European societies.”

Rinia and other IEEE leaders did indeed move carefully and tactfully, and relationships with the European societies have been conciliatory. But the IEEE did not affiliate with EUSEC.

VII. THE CREATION OF IEEE REGION 10 AND THE EXTENSION OF REGION 8

IEEE Region 8 was formed (as an IEEE Region after the IRE/AIEE merger) on 8 January 1963. At that time it comprised Europe, the Middle East and North Africa. The ‘Rest of the World’ was all Region 9 at that time, until in 1966, Region 9 was limited to South America and the ‘Rest of the World’ became Region 10, with Shigeo Shima as its first Director (1967–68). During its meeting on 13–14 November 1969, the Board of Directors agreed to change Bylaw 401.1 such that ‘Region 8 shall consist of Greenland, Europe, U.S.S.R. and the following countries in North Africa and the Near East: Aden Protectorate, Algeria, Bahrain, Chad, Eritrea, Ethiopia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Mali, Mauritania, Morocco, Muscat, Oman, Niger, Qatar, Saudi Arabia, Somalia, Spanish Sahara, Sudan, Syria, Trucial Coast, Tunisia, Turkey, the United Arab Republic, and Yemen.’ See Fig. 3. Note that ‘United Arab Republic’ was at that time and until 1971 the official name for Egypt; between 1958 and 1961, it was the name of a union between Egypt and Syria.

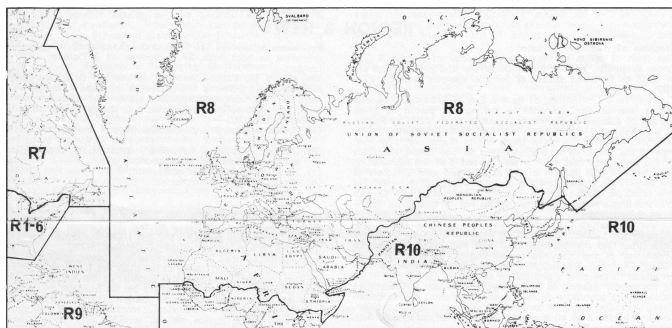


Figure 3. IEEE Regions as of 1 January 1970. The sketch is taken from IEEE Region 8 newsletter, No. 10, April 1970.

The South Africa Section (established 5 August 1977) and the Nigeria Section (established 12 January 1978) were part of IEEE Region 10 till 1981. At the 14 December 1979 meeting of the Regional Activities Board, Region 8 Director Dick C.J. Poortvliet (see picture) and Region 10 Director S.Y. King announced that Region 8 will add the continent of Africa to its territory in 1981 and that a proposal for revisions in the Bylaws would be presented at the February meeting. Said proposal was accepted unanimously at the 15 February 1980 RAB meeting, pending acceptance of the concerned sections (South Africa and Nigeria). In



the 22 August 1980 RAB meeting, the motion to recommend to the Board of Directors adoption of the revision of Bylaw 401.2 passed. In its subsequent meeting of 24–25 August 1980, Vice President Larry K. Wilson (Regional Activities) moved for (1) adoption of revised Bylaw 401.2 which would assign the continent of Africa to Region 8, as recommended by the Region 8 and 10 Committee and RAB, this boundary change to become effective January 1, 1981, (2) approval to waive the 1981 Region 8 assessment for those members involved in the transfer from Region 10 to Region 8, and (3) approval to include in the 1981 RAB Budget the funding of travel expenses of the Nigeria and South Africa Section Chairmen to attend 1981 Region 8 Committee meetings. The motion passed, after which Bylaw 401.2 reads: “... Region 8 shall consist of Africa, Europe, Greenland, Iceland, the Union of Soviet Socialist Republics, and the Near and Middle East countries located west of Afghanistan and Pakistan. ...” See Fig. 4.



Figure 4. IEEE Regions as of 1 January 1981. The sketch is taken from the IEEE web site.

VIII. THE PRESENT IEEE REGION 8 SECTIONS

The following list of 56 Sections, chronologically sorted by their foundation date, is taken from the Region 8 web site.

- 5-Oct-1954 Israel
- 8-Sep-1955 Egypt
- 13-May-1959 Benelux
- 13-May-1959 Italy^(a)
- 13-Dec-1960 Switzerland^(b)
- 17-Oct-1961 France
- 10-Jul-1962 UK & Rep of Ireland^(c)
- 28-Mar-1963 Norway
- 12-Jul-1963 Germany^(d)
- 29-Mar-1965 Sweden
- 16-Apr-1968 Spain
- 18-Aug-1968 Denmark
- 12-Feb-1970 Iran
- 17-Mar-1970 Greece
- 21-Jun-1971 Croatia^(e)
- 21-Jun-1971 Serbia and Montenegro^(e)
- 21-Jun-1971 Slovenia^(e)
- 1-Dec-1972 Poland
- 12-Jun-1973 Finland

5-Aug-1977 South Africa^(f)
 12-Jan-1978 Nigeria^(f)
 21-Dec-1979 Austria
 5-Jun-1981 Saudi Arabia
 4-Dec-1981 Portugal
 19-Nov-1982 Kenya^(g)
 20-Jun-1987 United Arab Emirates
 21-Aug-1987 Hungary
 18-Nov-1988 Western Saudi Arabia^(h)
 18-Aug-1989 Turkey
 20-Feb-1990 Kuwait
 15-Aug-1990 Romania
 15-Aug-1990 Russia⁽ⁱ⁾
 21-Nov-1991 Ukraine
 1-Aug-1992 Czechoslovakia
 30-Jun-1993 Cyprus^(j)
 24-Jun-1995 Bulgaria
 14-Feb-1997 Rep of Macedonia^(e)
 12-Nov-1999 Jordan
 23-Jun-2000 Iceland
 22-Jun-2001 Bahrain
 15-Feb-2002 Belarus
 13-Feb-2003 Russia (Northwest)⁽ⁱ⁾
 13-Feb-2003 Russia (Siberia)⁽ⁱ⁾
 18-Nov-2004 Lebanon
 18-Nov-2004 Morocco
 18-Nov-2004 Qatar
 18-Jun-2005 Lithuania
 12-Nov-2005 Bosnia and Herzegovina^(e)
 18-Feb-2006 Oman
 23-Jun-2006 Estonia
 18-Nov-2006 Malta
 16-Feb-2008 Latvia
 21-Jun-2008 Iraq
 21-Jun-2008 Tunisia
 5-Sep-2008 Ghana
 15-Nov-2008 Zambia

- (a) The Italy Section was split into two Sections, Italy (North) and Italy (Central & South) in May 1966; until 1988, Italy (Central & South) was called Italy (Middle & South). The two Sections were merged again in November 2005.
- (b) The Switzerland Section was called Geneva Section until 20 September 1967.
- (c) Until 1 November 1966, the UK & Rep of Ireland Section was called the UK & Eire Section.
- (d) Until 17 June 1991, the Germany Section was called the West Germany Section (until 20 September 1967) and Germany (West) Section (after 20 September 1967).
- (e) The Yugoslavian Section was established on 21 June 1971. Following the wars in Yugoslavia, in 1992 the Region 8 Director Kurt Richter organized a meeting with three members of the Yugoslavian Section Executive Committee in Graz, Austria. It was decided to form by petitions three new Sections, as three equal successors of

the previous Yugoslavian Section: the Slovenia Section, the Croatia Section, and the Yugoslavia Section, all established on 1 August 1992. It was a friendly splitting into three new Sections and in 1996 all three Sections celebrated their 25th anniversary. In 1997 the Republic of Macedonia Section was formed. The name Yugoslavia became an increasing anomaly, and in 2005 it was renamed the Serbia and Montenegro Section; the Bosnia and Herzegovina Section was formed later that year.

- (f) The South Africa and Nigeria Section were initially Sections of Region 10. They were assigned to Region 8 on 1 January 1981, when all of Africa was shifted from Region 10 to Region 8.
- (g) The Kenya Section has been called the East Africa Section for a couple of years, and was renamed Kenya Section again in August 1990.
- (h) The Western Saudi Arabia Section started as the Jeddah Subsection of the Saudi Arabia Section; formation date 16 February 1987. Until 15 August 1990 it was called the Jeddah Section.
- (i) After the Russia Section (initially: Moscow Section, until 28 February 1993) was formed in 1990, membership growth was very slow, mainly for economic reasons, although many Chapters were formed, partly with the aid of a financial support initiative from some IEEE Societies, especially from Electron Devices, and who paid for initial memberships so that Chapter formation petitions could be created, and there were a number of IEEE conferences held. However, Chapters in parts of Russia remote from Moscow sometimes complained of lack of support from their Section, and after a while moves to provide some independence for activities in St. Petersburg and Siberia arose. After some suggestions to form a Russia Council were abandoned, there was finally agreement in 1993 to form three Russia Sections, one to be called 'Northwest' and one 'Siberia' – while the original Russia Section retained responsibility for all other parts of the country. Existing Chapters were transferred to the newly formed Sections where the location of their principal activities justified it.
- (j) The Cyprus Section started as a Subsection of the Greece Section; formation date 18 July 1988.

REFERENCES

- [1] Bruce B. Barrow, "International Symposium on Data Transmission" and "Why in the world in Europe?" *IRE Transactions on Communication Systems*, vol. CS-9, no. 1, pp. 1–3, March 1961. The articles are available in IEEEXplore at <http://dx.doi.org/10.1109/TCOM.1961.1097659> and <http://dx.doi.org/10.1109/TCOM.1961.1097648>, respectively.
- [2] Bradley Cozzens, AIEE, and Walter E. Peterson, IRE, "Recommendations regarding IEEE Regions and Districts," 11 July 1962.
- [3] Jan Biemond and Bruce B. Barrow, "The Benelux Section and Early IRE/IEEE Activity in Europe," in *Proceedings of the 2009 IEEE Conference on the History of Technical Societies, Philadelphia, PA, 5–7 August 2009*. The article is available in IEEEXplore at <http://dx.doi.org/10.1109/HTS.2009.5337847>.
- [4] Robert C. Winton, "The Start of Region 8 and its Sections," in *Region 8 Centennial Review*, issued with the IEEE Region 8 newsletter, no. 65, 'The first in a series of four centennial issues,' February 1984.

Setting up the Basis for Region 8

Jean D. Lebel, Former IEEE Region 8 Director

I. INTRODUCTION

What follow are my personal recollections¹ (fifty years old and more) of IRE/IEEE activities to which I participated:

- The creation of Fairfield IRE Subsection in Connecticut
- The creation of IRE Sections in Switzerland and France
- The creation of IEEE European Region
- My term as IEEE Director (1965–66)

II. BECOMING STUDENT MEMBER OF IRE (INSTITUTE OF RADIO ENGINEERS)

In 1949 I was still a student for my diploma of Radio Engineer at Sup'Elec. I was often going to the library of a French Corporation in Paris (boulevard de Breteuil). I was reading the Proceedings of the IRE useful for my studies (mostly synchronization problems of oscillators).



Hence as soon as I was a graduate student at Computer Cruft Laboratory of Harvard University (for my Master in Applied Physics) and working at two laboratories of MIT (Acoustic Lab and Servomechanism Lab) as a student paid by the MIT Division of Industrial Cooperation, I became around 1952 Student Member of the IRE.

III. AS APPLIED PHYSICIST AT SCHLUMBERGER (RIDGEFIELD, CONNECTICUT)

I went regularly to Boston for NEREM (New England Regional Electronic Meeting). I met my friends of MIT and people trying to sell me mostly measuring equipment useful for my job.

Around 1956 (or 57) I was offered to join the board of the IRE Connecticut Section as Program Chairman. I invited Dr. Ronald McFarlan as speaker. We became great friends.

During the next years I was appointed Vice Chairman. I launched the Connector, a monthly publication of the IRE Connecticut Section. When I became Chairman of the Section, Dr. Ronald McFarlan was President-Elect of IRE. He suggested that I create the Subsection of Fairfield County within the Connecticut Section. In February 1960 my family and I returned to Europe.

¹As it often happens, recollection of dates may be wrong; accept my apologies for that.



Figure 1. At the banquet during a NEREM (New England Regional Electronic Meeting); may be in 1956.

IV. IN SWITZERLAND AND FRANCE

Arrived in Switzerland in 1960, I contacted members of the IRE. One of them, John Gayer working at the ITU (International Telecommunication Union in Geneva), was particularly helpful.

Without any doubt it is Dr. Ronald McFarlan, with whom I had kept in touch, who encouraged me to create the Swiss Section of the IRE. With my Swiss friends it was easy to do it.

That's when Dr. Ronald McFarlan became President of the IRE. Knowing that I was a double national of France and Switzerland, he suggested to me to create a French Section. The only two top members of IRE who I knew in France were Aubert (Thomson CSF) and Jean Vieillard (Founder of ISEP, *Institut Supérieur d'Electronique de Paris*). I had met them in Connecticut at the occasion of one of their trips to America. Immediately they advised me to contact Dr. Georges Goudet. He and I decided to get together those IRE Members who were also members of the SFER (*Société Française des Electriciens et Radioélectriciens*: i.e., French Society of Electricians and Radioelectricians).

Dr. Goudet mailed to my chalet in Switzerland the list of members of the SFER. I did compare it with the directory of the IRE. If a person belonged to the two (IRE and SFER),

we sent an invitation for a joint meeting with a drink in the late afternoon. Since I had no more “pied à terre” in Paris, that was going to take place at my folks apartment, Mr. and Mrs. Claude Lebel, 46 Rue de Bourgogne, 75007. Over forty came. An American member named Pernice offered to help us.

The President of IRE (Dr. Ronald McFarlan) scheduled a trip to Paris. After our meeting between members of both Societies, Dr. Goudet and I arranged that Dr. McFarlan meet with the President of the SFER, Mr. Abadie.

At this meeting the SFER accepted the creation of the French Section of the IRE. But there was an important condition: the meetings of the French Section of IRE should be conducted in English. IRE accepted. The official reason was that this opened the doors to English-language speakers (but it also avoided any competition with the SFER).

Goudet thought that Pernice, an IRE member, American, living in Paris, should be the first President of the French Section of the IRE. Goudet became President-Elect and I took the secretariat.

The “French Section of the Institute of Radio Engineers” was born in 1961 with 300 members.

V. IEEE: INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEER

The merger of the IRE (Institute of Radio Engineers) and the AIEE (American Institute of Electrical Engineers) took place in 1963. It is documented in Ref. [1, Section IV]; see also the paper by Martin J. Bastiaans, “Researching the Roots of IEEE Region 8” in these HISTELCON proceedings, Section VI.

VI. CREATION OF THE EUROPEAN REGION

In 1961 the IRE was organized in 7 Regions (6 for the U.S.A. and 1 in Canada). In 1962 an IRE member, a good friend who had moved from Paris to the Netherlands, called me a little nervous: “John, that merger between AIEE and IRE may disturb us. We may have problems with our old idea to have a European Region.” I assured him of the full support of the “French Section of IRE.”

He and others have then created in 1962 the European Region – i.e., IRE Region 9 – which is now IEEE Region 8, see Refs. [1, Section III] and [2], and the aforementioned paper by Martin J. Bastiaans in these proceedings, Sections III and V.

Meanwhile the “French Section of IRE” changed its name to “French Section of IEEE.”

Ir. Rinia, of Philips, was elected for two years (1963–1964) as the first “IEEE Director of Region 8.” He was to represent IEEE Region 8 on the board of the IEEE.

At his suggestion I applied at the next election of the “IEEE Region 8 Director.” Elected without difficulty, I began two years (1965–1966) of very interesting work.

VII. IEEE BOARD MEETINGS IN NEW YORK

There was every three months an IEEE board meeting, usually in New York. The majority of board members were not in favour of this European Region.

But there were a few board members who felt it was a unique opportunity for the development of IEEE. On the board was the former director of the Electrical Engineering Department of MIT, Dr. Gordon Brown. He had hired me 15 years before as a Staff Member of the MIT Division of Industrial Cooperation.

VIII. REGION 8 BOARD MEETINGS

Board meetings of IEEE Region 8 were held once or twice a year. Usually the premises of ITU (International Telecommunication Union) were made available to us in their Geneva headquarters. John Gayer and the Swiss Section have been very helpful in those occasions.

Region 8 covered the territory of the European Broadcasting Area extending up to Israel and Egypt. Both countries were represented. I had to use a little tact to have them at the same table. First I sat them at the two ends of the table. Both of them were very cooperative and everything went smoothly.

We planned to start new Sections.

IX. VISIT TO VARIOUS EUROPEAN SECTIONS

It was compulsory for the Director to visit the various Sections.

I started with the **German** Section; Dr. Rhode was Chairman. The trip to Munich was very interesting, because I used in my work the laboratory apparatus of Rhode and Schwartz. Then I moved to northern Sections.

The **Norway** Section was created thanks to NIT (Norwegian Institute of Technology). As a private pilot the flight to get there impressed me: at low altitude we entered a fjord at the tip of which was the landing field.

Norwegians received me with great kindness. Knowing my interest in skiing, they had organized a weekend of skiing in the mountains, a few tens of kilometers from Oslo; the sky was clear blue.

Jokingly they said that the Swedes had finally decided to drive on the right hand side of the road. To give the example, on January 1st the Swede trucks would be the first to drive on the right hand side of the road, whereas the cars would do it a few months after.

So I flew after January 1st to **Sweden**. The Chairman of the Swedish IEEE Section picked me up at the airport to kindly offer me a drink at home. On reaching home, he forgot that all vehicles recently had to drive on the right hand side. We both were scared.

Stockholm impressed me with its granite buildings. Uppsala University gave me the opportunity to talk about the IEEE and its publications.

Denmark was the most crushing defeat of my visits: there was no Section. All my efforts to get them to start one ran into opposition from the president of some local business. Only a few years later, after his death, one of my successors managed to create a Danish Section of the IEEE.

In **Italy** there was a Section of the Po Plain. So I went to Rome to support those who wanted a Section for the south of

Italy: it is mostly students who campaigned for the successful creation soon after my trip.

Spain was still under Franco's regime, which prohibited the creation of groups such as a Section of the IEEE. In Barcelona there were IEEE members, Students who met for conferences, under the pretext of classes. I did encourage them in that way. They told me to go to Madrid to see what was happening at the Telecommunications School. Of course there was no Section. But Hewlett-Packard had sent a huge amount of equipment. It was stored in a basement, completely unused.

Israel, as I explained above, was part of Region 8. For my trip there, I took my two passports: the Swiss and the French. So I could go to an Arab country with one and to Israel with the other. I did not have to do it.

In Jerusalem the Chairman of the Section (he created an electronics company) offered me a stay in a hotel, 100% Jewish. As a Christian, I felt alone in the dining room. I then realized what it is like to be alone of its kind.

The next day, always alone, early in the morning I went out in Jerusalem. To use my Jerusalem map which had Hebrew characters, I compared them with the Hebrew signs of street names.

Driving towards the Dead Sea, I went near Beer Shiva. I stopped along fences preventing access probably to a nuclear site. No photographs!

On the evening of the same day, the Israel IEEE Section wanted me to see a show (in Tel Aviv). To cut the crowd I had to be very close behind a horse. The show was a reproduction of the recent six-day war: deafening gun fire, caterpillars of tanks materialized by men; in short, the big show for the IEEE Director!

I went to **Turkey** (American University of Ankara) where I met with students.

X. WELCOME TO IEEE PRESIDENTS TRAVELING TO EUROPE

When a President of the IEEE was traveling to Europe, I had to take care of him.

I took President **Dr. Barney Oliver** and his wife to the *Aiguille du Midi* (3'778 m) by cable car from Chamonix. From there we went, by another cable car, through the *Glacier du Géant*. During stops we could admire beautiful crevasses and *seracs* (huge blocks of ice). There was a restaurant below the arrival in Italy at point *Heilbronner* (3'466 m). After lunch, Dr. Barney Oliver suffered from lack of oxygen going up the stairs from the restaurant.

When prominent IEEE members were traveling to Switzerland, I flew them with a Pilatus Porter piloted by Hermann Geiger. We landed on glaciers between 3'000 and 4'000 m.



Figure 2. Three IEEE VIPs – in front of the airplane – and myself; probably taken in 1965.

XI. STUDENT CONTEST

With Professor Jespers at the University of Louvain we created the European Student Contest.

Branches of Students from various universities were born soon after the creation of Region 8 (Europe). Students in each branch were competing to choose a candidate for their country: he would be sent to the European Student Contest. The winners met for a day in a university organizing the contest. It was a good opportunity for students from various Sections of the IEEE to meet others. The winner of Region 8 competed with the winners of seven other Regions, another intellectual enrichment.

After the end of my term as Director of Region 8, I have not done much in this area.

XII. GENTLEMEN'S AGREEMENT WITH THE ENGLISH SECTION

My successor Bob Williams (of the English section) realized that the Director could always come from the English Section which had a majority of votes. We concluded a gentlemen's agreement: this Section would not present a candidate in every election.

REFERENCES

- [1] Jan Biemond and Bruce B. Barrow, "The Benelux Section and Early IRE/IEEE Activity in Europe," in *Proceedings of the 2009 IEEE Conference on the History of Technical Societies, Philadelphia, PA, 5-7 August 2009*. The article is available in IEEEXplore at <http://dx.doi.org/10.1109/HTS.2009.5337847>.
- [2] Robert C. Winton, "The Start of Region 8 and its Sections," in *Region 8 Centennial Review*, issued with the IEEE Region 8 newsletter, no. 65, 'The first in a series of four centennial issues,' February 1984.

Conferences, Technical Societies and Development – A History of Synergy

Dr. Jacob Baal-Schem, IEEE SLM

Tel-Aviv University, Israel

Abstract — This paper is about IEEE Region 8 Conferences, their *raison d'être* and their impact on the development of Electro-technology in Europe, the Middle East and Africa (EMEA), which constitute the geographical area of the Region.

The claim is that technology conferences, held by 'learned societies' in different parts of Region 8, were necessary for the technological development of the Region, in order to highlight and discuss the problems with which technology world is coping. In order to set up these conferences, technology experts needed technical societies, such as IEEE, to enable – among other activities – this facility. On the other hand, the holding of these Conferences contributed to the technological development of the Region and to the contact between scientists and engineers, for the benefit of Humanity.

Thereby, IEEE Region 8 and the series of EUROCON, MELECON, AFRICON etc. conferences had a synergetic effect on the technological development of EMEA during the last 50 years (1960–2010). In a business application, synergy means that teamwork will produce an overall better result than if each person within the group were working toward the same goal individually and it is claimed that by creating the awareness about the latest inventions, issues and concerns of technology among technologists, IEEE Conferences, organized by Region 8 Operating units, have largely contributed to the technological development of EMEA in the fields related to IEEE activities.

Index Terms — Conferences, IEEE, Technology-transfer, Region 8.

I. INTRODUCTION

Edison was one of a small group of men who responded to Nathaniel S. Keith's call for a New York meeting to organize a society of electrical professionals to represent the United States to foreign dignitaries who would be attending the International Electrical Exposition the Franklin Institute was hosting in Philadelphia that fall. They met in New York on May 13, 1884 and established the American Institute of Electrical Engineers. The men were a cross section of the electrical experts of the era. The first AIEE president, Norvin Green, was the president of Western Union; the six vice presidents included Thomas Edison, telephone inventor Alexander Graham Bell, MIT physics professor Charles Cross, two veteran telegraphers, and an employee of equipment manufacturer Western Electric. That fall, the new AIEE held its first technical meeting in Philadelphia. Six papers were presented, and then published as the first issue of the new society's journal, the Transactions of the AIEE.

By 1912, Radio engineering was a young profession, with radio telegraph stations connecting ships at sea. A small group of men representing local societies in New York and Boston met in New York in May 1912, and led by Robert Marriott, Alfred Goldsmith, and John V.L Hogan, formed the Institute of

Radio Engineers. Marriott became the first IRE president. To a large extent, they modeled their Institute on the AIEE, with membership grades, a journal, local sections, standards activities, and technical meetings, but there were other influences as well. They established their journal, the Proceedings of the IRE, along the lines of scientific journals, with papers directly submitted and peer review, which allowed for faster publication than AIEE's policy that papers be presented at meetings first. They deliberately did not include 'American' in their name, to signify the transnational nature of radio. Therefore, as years passed, new IRE sections were set up, first in the American continent and later in the Eastern Hemisphere, beginning with the Israel IRE Section, set up in 1954.

In 1963, AIEE and IRE merged into IEEE. As IRE had at that time several Sections in the Eastern Hemisphere, Region 8 was founded as part of IEEE to cover Europe and the Middle East. A few years later, Africa was included into Region 8 borders.

II. EUROCON

One of the first goals of the IEEE Region 8 Committee was to organize technical Conferences, similar to the events held in the US. This could be done only in cooperation with European National Societies. As reported by Dr. Fritz Eggiman, IEEE Chair of the First European Conference, they successfully got the support from 13 national engineering associations within Europe, who became 'supporting Societies' of EUROCON. This became the basis for the founding in 1972 of a Convention of National Societies of Electrical Engineers of Europe (EUREL) as a non-profit organization, as the official partner of IEEE Region 8 in organizing the following EUROCONs. EUREL represents nowadays Member Associations of 9 Countries in Greater Europe. Among EUREL's Missions, the first one was "To facilitate exchange of information and foster a wider dissemination of scientific, technical and other information relevant to Electrical Engineering between Members and other interested bodies."

The first joined activity of IEEE Region 8 and the European national associations was to hold EUROCON 1971, the first European Conference on Electrotechnology, at the Palais de Beaulieu, Lausanne, Switzerland, 18–22 October 1971. Following EUROCON Conferences were held by agreement between IEEE Region 8 and EUREL.

Enormous technological progress was made during the second world war. The English developed radar which would be the forerunner of television. Progress in electronics and computers, made during the war, provided a foundation

for further development that fundamentally transformed the postwar world. All these tremendous developments needed a scene for presentation to the young engineers and EUROCON aimed to become the venue.

The subjects of EUROCON 1971 sessions included:

- Automatic timers
- Biomedical engineering
- Telecommunication
- Electric power distribution
- Electronic data processing
- Integrated circuits

The major objectives set by the convention steering committee – as published in IEEE Spectrum of October 1970 – were as follows: “EUROCON ’71 will provide specialist conferences in selected areas, as well as general reviews and discussions on the state of the art and interactions of technologies. The conference intends to present an educational program of in-depth treatment of advanced technologies.”

EUROCON 1971 was followed by EUROCON 1974 in Amsterdam, and by EUROCON 1977 in Venice, where a Special session was devoted to Communications in developing countries, which was considered to be an important item not only for these countries but for the future of the whole world.

Table I
THE FIRST SERIES OF EUROCON CONFERENCES

- 1 EUROCON 1971 – Lausanne, Switzerland, 18–22 October
- 2 EUROCON 1974 – Amsterdam, Netherlands, 22–26 April
- 3 EUROCON 1977 – Venice, Italy, 3–6 May
- 4 EUROCON 1980 – Stuttgart, Germany, 24–28 March
- 5 EUROCON 1982 – Copenhagen, Denmark, 14–18 June
- 6 EUROCON 1984 – Brighton, UK, 26–28 September
- 7 EUROCON 1986 – Paris, France, 21–23 April
- 8 EUROCON 1988 – Stockholm, Sweden, 13–17 June

EUROCON 1990 was replaced by CompEuro ’90, and EUROCON 1992, scheduled to be held in Zurich, Switzerland, 18–21 May, was canceled.

EUROCON Conferences actually fulfilled their aim “To provide an environment conducive to the informal interaction of engineers, scientists and technical management people. They will be able to make professional contacts and follow them up by attending successive conventions.”

The organizers of EUROCON 1977 already realized the effect of the growth of communications in developing countries, mainly meaning African countries, and a full day of presentations and round-table discussions was devoted to the techno-economic problems and needs for the development of communications in these countries.

The partnership between IEEE Region 8 and EUREL was discontinued in 1988 and the parties agreed that Region 8 can continue to use the EUROCON brand for its meetings.

III. MELECON

While Central Europe profited from the interaction provided by these Conferences and developed technologically, a new geographical area started blossoming technologically: the Mediterranean Countries. This was the moment when the IEEE Israel Section initiated MELECON, the Mediterranean

Electrotechnology Conference. The first edition, held in Tel-Aviv, in presence of Israel’s President and the IEEE President had over 1200 attendees and was followed by MELECON 1983 in Athens, MELECON 1985 in Madrid, and so on.

Table II
THE SERIES OF MELECON CONFERENCES

- 1 MELECON 1981 – Tel-Aviv, Israel, 24–28 May
- 2 MELECON 1983 – Athens, Greece, 24–26 May
- 3 MELECON 1985 – Madrid, Spain, 8–10 October
- 4 MELECON 1987 – Rome, Italy, 24–26 March
- 5 MELECON 1989 – Lisbon, Portugal, 11–13 April
- 6 MELECON 1991 – Ljubljana, Yugoslavia, 22–24 May
- 7 MELECON 1994 – Antalya, Turkey, 12–14 April
- 8 MELECON 1996 – Bari, Italy, 13–16 May
- 9 MELECON 1998 – Tel-Aviv, Israel, 18–20 May
- 10 MELECON 2000 – Limassol, Cyprus, 29–31 May
- 11 MELECON 2002 – Cairo, Egypt, 7–9 May
- 12 MELECON 2004 – Dubrovnik, Croatia, 12–15 May
- 13 MELECON 2006 – Benalmádena (Málaga), Spain, 16–19 May
- 14 MELECON 2008 – Ajaccio, Corsica, France, 5–7 May
- 15 MELECON 2010 – Valletta, Malta, 25–28 April
- 16 MELECON 2012 – Yasmine Hammamet, Tunisia, 25–28 March

IV. AFRICON

As Electrotechnology begun developing in Africa, an IEEE Kenya Section was formed and the first AFRICON Conference was held in Nairobi in 1983, to be followed by AFRICON Conferences in Ivory Coast, Swaziland, South Africa etc. A major problem encountered in these conferences was that Africa was losing some of its best scientific and technical expertise to other regions of the world as many scientists and technician are joining the ‘brain drain’ and are leaving the continent to work abroad. This was the reason that after the first AFRICONS, this series of conferences continued mainly in South Africa for some years.

Table III
THE SERIES OF AFRICON CONFERENCES

- 1 AFRICON 1983 – Nairobi, Kenya, 7–9 December
- 2 AFRICON 1987 – Abidjan, Ivory Coast, 30 November–2 December
- 3 AFRICON 1992 – Mbabane, Swaziland, 22–24 September
- 4 AFRICON 1996 – Stellenbosch, South Africa, 24–27 September
- 5 AFRICON 1999 – Cape Town, South Africa, 28 September–1 October
- 6 AFRICON 2002 – George, South Africa, 2–4 October
- 7 AFRICON 2004 – Gaborone, Botswana, 15–17 September
- 8 AFRICON 2007 – Windhoek, Namibia, 26–28 September
- 9 AFRICON 2009 – Nairobi, Kenya, 23–25 September
- 10 AFRICON 2011 – Livingstone, Zambia, 13–15 September

V. EUROCON IN EASTERN COUNTRIES

A new wave of demand for technological know-how arrived with the fall of the Berlin wall in November 1989 and the formation of a series of post-Soviet countries. The EUROCON series, which had already ‘achieved’ its task of supporting Western Europe, found here a new challenge.

Table IV
THE SECOND SERIES OF EUROCON CONFERENCES

- 9 EUROCON 2001 – Bratislava, Slovakia, 5–7 July
- 10 EUROCON 2003 – Ljubljana, Slovenia, 22–24 September
- 11 EUROCON 2005 – Belgrade, Serbia, 21–24 November
- 12 EUROCON 2007 – Warsaw, Poland, 9–12 September
- 13 EUROCON 2009 – St. Petersburg, Russia, 18–23 May
- 14 EUROCON 2011 – Lisbon, Portugal, 27–29 April

VI. IMPACTS ON TECHNOLOGICAL DEVELOPMENT

Impacts of EUROCON

The years 1945–1975 reflect, mainly in Western Europe, Postwar Growth and National Economic Reconstruction. Europe saw many changes in the immediate post-war period. In part, these changes were brought about by a prosperity that was largely the result of a stable world order in which major investments took place to rebuild national economies damaged by war. In many European countries – and France is certainly no exception here – there was an unbroken period of economic prosperity and rising standards of living, which lasted until the 1970s. In France, the name given to this period of growth, prosperity and abrupt social change was *les trente glorieuses*, that is to say, the thirty glorious years between 1945 and 1975, or more accurately, between the liberation of France in 1944 until the economic downturn triggered by the oil crisis (*crise pétrolière*) of 1973.

Impacts of MELECON

Founded as a State in 1948, Israel had already the Hebrew University as well as the Technion – Israel Institute of Technology – where studies began in 1924. The Weizmann Institute of Science, established in 1934, built the first modern electronic computer in the Middle-East – the WEIZAC – during 1954–1955. These were the years when Israeli Engineers needed the contact with worldwide technological know-how and founded the first Section of the IRE. During the 1970s and the 1980s, Israel began developing the infrastructure needed for research and development, and this was one of the triggers for the initiation of the MELECON series of Conferences.

Impacts of Eastern Countries EUROCONS

In the days before the fall of the ‘Iron Curtain,’ IEEE activity in Eastern and Central Europe Countries was limited. There was a Poland Section, formed in 1972 and occasional IEEE related Conferences had taken place there. The Hungary Section was formed in 1987 and the Region 8 Committee held a meeting in Budapest in April 1989. After the fall of the Berlin Wall, there was a rapid development of IEEE activity and formation of new Sections. The IEEE Russia Section was formed in 1990, and the formation of a Communication Society Chapter followed, but membership growth was slow. Between 1990 and 1992, six new IEEE Sections were formed in Eastern Europe countries, and each, in turn, formed several Society Chapters. These Sections and Chapters sponsored the holding of the ‘revived’ EUROCON Conferences in Eastern Europe countries. As the economic and technological activities developed in these countries, IEEE membership grew and several Region 8 Committee meetings were held in Eastern Europe countries.

The demand for new Conferences

Similar trends are felt since the beginning of the 21st Century on the edges of the Region 8 area. SIBIRCON was first held in 2008 in Novosibirsk, Russia, 21–25 July,

followed by Irkutsk Listvyanka, Russia, 11–15 July 2010. ENERGYCON was initiated in 2010 by the IEEE Saudi Arabia Section; the first one took place in Manama, Bahrain, 18–22 December, and the second one in Florence, Italy, 9–12 September 2012.

VII. THE SYNERGY PATTERN

We can therefore draw a pattern of synergy between Technology, Learned Societies and Conferences:

- The influx of technology into a geographical area is based on the work of a group of scientists and engineers.
- In order to facilitate technological activities, this group forms a National Society, and in many cases a Section of a Transnational body such as IRE and later IEEE.
- The demand for an interchange of ideas between scientists and engineers from different Sections is followed by the organization of a Technical Conference.
- The participation in Technical Conferences enriches the base of knowledge of the members of the audience and contributes to an additional technological development of the area.

This pattern worked well on broad based Regional Conferences, while a trial to set-up a specialized conference like CompEuro – a joint series of Conferences organized by Region 8 and the IEEE Computer Society – did not survive its seventh yearly edition (1987–1993).

VIII. CONCLUSIONS

One can therefore conclude that:

- The first broad conferences in an area foster the technological development of this area, by enabling contacts between Scientists and Technologists of the Region as well as contacts with Prominent Scientists from other parts of the world.
- As time goes by, specialists are migrating to ‘specialists conferences,’ which usually are organized by Societies (while broad conferences are organized by Sections and Regions).
- At this stage, the Regional Conference remains a place for making the first contact and exchanging ideas, mainly for the young newcomers to technology.

Dr. Jacob Baal-Schem received the degrees of Bachelor of Electrical Engineering (1959), Master in EE (1966) and Doctor of Science in Industrial Management (1979) from the Technion, Israel Institute of Technology. After going through the ranks of Israel Defense Forces, he served as Head of the Technical Division of Israel Signal Corps (1973–1975) and Head of Electronics Division of Israel Defense R&D (1975–1977). He retired as Colonel, to join the Interdisciplinary Center for Technological Analysis and Forecasting at Tel-Aviv University (1978–1992). From 1992 to 1997 he was Head of the Interactive Telecommunications Program at the School of Communications of the College of Management and Senior Lecturer at Tel-Aviv University. He is Senior Life Member of IEEE, Member of World Future Society, and received the IEEE Centennial Medal in 1984. In 1987 he received the Larry K. Wilson Transnational Award for Initiation of the MELECON Conferences. In 2000 he received the IEEE Third Millennium Medal. He received the IEEE Region 8 Volunteer award for 2010. He enjoys Classical Music and Traveling.

Dr. Baal-Schem was Chair of the IEEE Israel Section (1977–1981), Region Conference Coordinator (1981–1993) and member of the IEEE Meetings Committee (1993–2001). He is presently the Chair of the Israel Section Life Members Group and a member of the IEEE History Committee. He initiated the HISTELCON Conferences and co-chaired HISTELCON 2008.

“... Go East, Region 8, Go East ...”

Anthony C Davies

Visiting Professor, Kingston University, Penrhyn Rd, Kingston-upon-Thames, Surrey, KT1 2EE, UK and
Emeritus Professor, King's College London, Strand, London, WC2R 2LS, UK

Abstract — The development of IEEE activity and formation of new Sections and Chapters in Central and Eastern Europe following the fall of the “Iron Curtain” and the dismantling of the Berlin Wall is outlined, from the personal perspective and experiences of the author .

Index Terms — IEEE History, IEEE Region development, IEEE Membership.

I. REGION 8 ACTIVITY IN EASTERN EUROPE

Of course, Region 8 (R8) did not literally expand its boundaries after the dismantling of the Berlin Wall and the fall of the “Iron Curtain”, and neither John Soule nor Horace Greeley were around to rephrase their alleged quotation “Go West, Young Man” [1]. However, the reality was a very large increase in Chapters, Sections and active IEEE volunteer members, including students, in the countries of Central and Eastern Europe over the period from 1990 to 2008. IEEE membership numbers there have not increased to the same extent, which is especially notable in the former Soviet Union even in locations where there are very large numbers of engineers and scientists.

In what follows, ‘Eastern Europe’ is used to describe all countries in the Eastern part of R8 which had Communist governments, including the Soviet Union and the somewhat independent ones, such as Romania and Yugoslavia.

II. MY QUALIFICATIONS TO DESCRIBE THE EXPANSION

After many years of varied activities as an IEEE volunteer, I became involved in the following positions:

- R8 Circuits and Systems Chapter Coordinator and Chapter Coordination Subcommittee Chair
- R8 Vice President of Circuits and Systems Society
- R8 Vice President, Technical Activities
- R8 Director

as well as membership of the IEEE Transnational Committee (including being its Chair). I had been involved with conference organization and chapter activities for some years, but my first experience of the R8 Committee was in Eindhoven, in Spring 1978. I was invited to be a member of a student paper judging panel in Eindhoven, so could attend as an observer. The R8 Committee was small enough to easily fit around the table in the Philips Company Boardroom, and the friendship and cooperation between the Section Chairs of

many nationalities (including Poland and Israel), left a permanent and favourable impression upon me.

At that time, the R8 Sections were mostly in North-Western Europe and activities were predominantly ‘managed’ from the UK (for example, for many years, the Secretary, the Editor of R8 News and several other senior officers were from the UK, and held positions that were, in effect, not subject to regular election processes).

New Bylaws adopted in 1997 provided a structure of elected officers with generally well-defined procedures for nominations and elections, in a pattern and structure which is very similar today.

III. ACADEMIC LINKS BETWEEN EAST AND WEST

A. Before the fall of the “iron curtain”

Because ‘Western’ journals were generally not available in the ‘East’, it was usual for authors to receive reprint-request cards from researchers and academics in the ‘Eastern’ countries, and by receiving these, from the mid 1960s, I gained some familiarity with major universities, research institutes and some of their members in such countries.

In 1971, I had a big involvement in planning an IEEE international conference in London, which not only gave me long-lasting personal links with many people working in my research-field, but also brought me into contact with a large contingent from Hungary among the delegates. Hardly any others came from Eastern Europe. However shortly after, I made my first visit to Eastern Europe, to a Summer School at Talé in the east of Czechoslovakia, and there I met many participants from various of the Eastern European countries, including Russia, who were generally not allowed to visit Western Europe.

These provided me with many personal contacts among academics in Eastern Europe, which were strengthened by the practice of The British Council to fund exchange-visits between UK universities and universities and research institutes in Eastern European countries. As a visiting academic, and not a salesman, diplomat or spy, I could easily meet the families of academics, form friendships, better understand their situation and bypass some of the ‘formalities’ imposed by politics.

Photocopiers were generally not available in the ‘East’ or were under the strict control of the ‘state’ – so the possession of photocopies of official documents tended to confer greater status and respect on a visitor than possession of the originals.

From 1979, I made several visits to Hungary.

Among my 'connections' was one with the Dresden Technical University, which had a formal agreement for cooperation with the City University in London which involved short exchange-visits of academics in each direction. There was no IEEE involvement in this, but I saw that once the end of the GDR (East Germany) occurred and its extreme travel restrictions had ended, there was good scope for starting IEEE Chapter activities and IEEE events in the area.

B. After the fall of the "iron curtain"

My links with various academics in Eastern European countries (particularly at Dresden Technical University, Kaunas Technical University and Budapest Technical University) led me to expect that from 1990, there would be many more 'exchanges' of academics and graduate students and post-doctoral workers, to be a welcome addition to research teams in UK universities. In reality, there were fewer such visits than I expected, partly because of the relatively high cost of living in the UK.

At an early stage, the European Commission provided funds to enable universities in EU countries to form partnerships with universities in Eastern Europe, with the aim of providing curriculum updating and the provision of improved modern laboratory equipment and facilities (the TEMPUS programme: "Trans-European Mobility Scheme for University Studies"[2]). Although interesting for the academics involved, this was not very attractive to the 'managements' of UK universities, because the overheads provided with these grants was very small, the paperwork was very labour intensive, and at the same time, UK universities were under new and strong financial pressures to maximize their incomes, reduce their costs and operate in a more 'commercial' way.

However, for the projects which were accepted, this provided (for the electrical, electronic and computer fields) a good opportunity to promote and encourage IEEE activities in Eastern Europe universities.

Prior to all this, there was a 'tradition' of annual joint workshops (in the electrical circuit theory field) between the Budapest Technical University, the Czech Technical University (in Prague) and the Warsaw Polytechnic.

Because of my familiarity with some academics involved in the organization of these workshops, I felt that there was an excellent basis for applying for a TEMPUS project involving all three institutions (with Delft University of Technology and King's College London as the 'Western' partners). We worked on the proposal documents during the 1991 Polish-Czech-Hungarian workshop on Circuit Theory at Göd, near Budapest.

Unfortunately this attempt was not successful: we had failed to appreciate that success required approval of the 'Eastern countries' national TEMPUS offices as well as the European Commission, e.g. success required approval by authorities in Hungary AND Czechoslovakia AND Poland AND Brussels. It is clear that getting approval by all of four agencies is

difficult and not as easy as for only two. Having learned this, we submitted a new proposal involving only Warsaw (with Delft and London) and this was successful.

However the added personal links established did enable me (and others) to make 'IEEE connections' with events and people in all of the above countries, and I think helped to ease the spread of IEEE Chapters, and the IEEE financial and publicity support for conferences and workshops. Particularly that was the case with the Circuits and Systems (CAS) Society subject area, because at that time, the Society had ample (and growing) reserves and being R8 CAS Vice President helped me to get approval to support various events in Eastern Europe.

This included the Technical University Iași, in North-eastern Romania, where a CAS Chapter and a CAS student branch were formed and an annual international symposium 'SCS' (Signals Circuits and Systems) was supported.

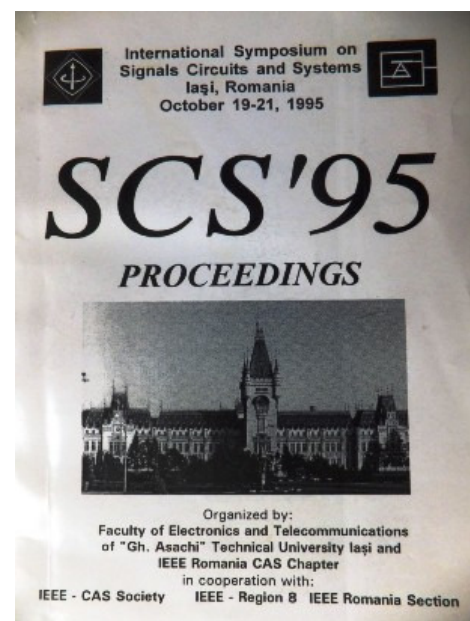


Figure 1. Proceedings of SCS Symposium

At the same time, good links with the Polytechnic University of Bucharest arose, and of particular note is the remarkable success which their students have had in the worldwide IEEE Computer Society International Design Competition (CSIDC). Their student team came first in 2002, second in 2003 and 2004, and third in 2005 and 2006.

The SCS symposium continues, with the 10th held at Iași in June 2011, still organized by the Faculty of Electronics, Telecommunications and Information Technology of the Technical University Iași, the IEEE Romania Section & CAS Chapter, in cooperation with the IEEE CAS Society. The two co-chairs are one from Iași and one from California.

What I believe to have been the first IEEE event in the territory of the former GDR (East Germany) was run jointly by the UKRI CAS Chapter and Dresden Technical University. This was a two-day international workshop, Non-linear

Dynamics of Electronic Systems (NDES) in summer 1993, arising directly from my joint research activities with a 'Chaos' group at Dresden. It was held in Schloß Eckberg, a magnificent location high above the River Elbe, a place which would surely be unaffordable now. We expected it to be a 'once only' event, but in reality, it has continued on an annual basis ever since, moving around the world, to Kraków in 1994, Dublin in 1995, Sevilla in 1996, Moscow in 1997, Budapest in 1998 and, after many other venues, eventually returning to Dresden in 2010.

The 'rules' of IEEE as promulgated from Piscataway do not like Sections or Chapters arranging events outside their geographical boundaries, and this is one example of the inappropriateness of such rules for R8, being just one of many international events in R8 outside the UKRI Section which were initiated within the UKRI Section by its IEEE Chapters.



Figure 2. Proceedings of NDES'93

IV. IEEE IN THE EAST BEFORE 1990

The Poland Section was established in 1972, and the Poland Section Chair was able to attend meetings of the R8 Committee.

Currencies of the Eastern Europe countries were not generally exchangeable for US dollars or any of the Western European currencies, and where conversion was allowed, it was at artificially designated exchange rates, sometimes dependent upon the class of transaction. For example, between British Pounds and Czechoslovak Crowns, there were two distinct rates in 1971 – one for commercial transactions at about 1:19 and one for tourist and personal visits at about 1:38. Conference visits could be in a not-well-defined category, which could result in uncertainties over which to use. Commonly Western currencies could be taken into these

countries without restriction, but had to be immediately changed to local currency, which could not be converted back again. Even between the Eastern European countries the movement of their own currencies was not allowed – for example, when travelling between Czechoslovakia and East Germany, it was forbidden to carry any of their currency across the border in either direction – even though it was commonly done. While this may seem extraordinary now, it should be remembered that such restrictions were not only in the Communist countries. For example, until 1974, British citizens who made trips abroad could normally take only a strictly limited amount of foreign currency with them, and were supposed to convert back to sterling any that they brought back unused. It was also forbidden for them to open or maintain foreign currency bank accounts abroad unless there were approved business reasons for doing so.

In the case of Yugoslavia, IEEE operated a blocked-currency account: membership dues could not be transferred to USA, but an arrangement was made to keep the funds in Yugoslavia. This money was then used for IEEE visitors to the country – for example to attend conferences, in which case the registration and hotel costs were paid from the blocked currency account. One R8 Committee meeting was held in Dubrovnik (in autumn 1974) to use some of the money in this account. Internal transfers within IEEE could then be used to 'balance' the external accounting. The net effect, of course, was to bypass the blocking of financial transfers out of Yugoslavia, to the benefit of all concerned.

The Hungary Section was formed in 1987, and the R8 Committee held a meeting in Budapest in April 1989. However, this reflected the impending political changes and the process of liberalization which was already under way in Hungary, and should be regarded as part of the developments leading to the dismantling of the Berlin Wall. Notable events of late 1989 included the opening of the Hungarian border with Austria to East Germans wishing to travel to Western countries, which rendered the Wall ineffective.

Although the Romania Section was not formed until 1990, it had the status of a 'Section in Development' for some years before that, during difficult times, and was visited by the R8 Director of the time, Basil Osborne' in the mid 1980s, to try to provide assistance.

V. FIRST STEPS AFTER THE CURTAIN FELL

There was a campaign of the UKRI Section to supply surplus IEEE Journals to needy universities in Eastern Europe – for which there were successes and failures. It was not difficult to collect large donations of unwanted journals, but shipping them to a destination in Eastern Europe was another matter! The cost was very high, and there was no assurance that they would reach their destination. It is known that some of the journals were successfully received, but in a number of cases (for example, going to Albania) there is no information of them ever being received. IEEE members taking a few

copies to conferences and giving them away was successful but of course could have only limited impact.

A major and lasting success was an initiative primarily from the IEEE Electron Devices Society to establish Chapters in the Eastern European countries by paying the membership dues of a sufficient number of people to enable a Chapter formation petition to be signed and submitted. This practice of subsidizing membership spread particularly among the Societies of IEEE Divisions I and IV. It was associated with a sequence of Region 8 Chapter Chair meetings, to which the Chairs of these new Chapters were invited, with travel funds provided. Generally these Chapter Chair meetings were held at the time of a major annual conference in R8 of one of the participating Societies, so that for an affordable small extra cost, the Chapter Chairs could also attend the conference and meet a huge range of participants. This provided an extra incentive for them to attend the Chapter Chair meeting and learn about how to run IEEE activities, etc. The Microwave Theory and Techniques Society was very active in this initiative and still holds such meetings.

This led to several similar Chapter Chairs meetings for other Societies being initiated by the R8 Committee (for example, one for Signal Processing Chapter Chairs alongside the ICASSP in Istanbul, Turkey in June 2000).

Reimbursing expenses was often a problem in the early years of this activity, because at that time those from Eastern Europe generally did not have credit cards, and in some of the countries, personal bank accounts were not allowed.

Moreover, there was a risk of payments transmitted to them in their own countries being treated as income and taxed at a very high rate and/or this might raise suspicions about the source and reasons for such foreign payments. It has to be remembered that most of these recipients had recent memories of living in regimes where long interrogations in unpleasant environments could be initiated for undisclosed reasons, and so there was a strong preference for receiving expenses as cash (preferably US dollars) handed over to them in the street or other 'anonymous' places. The 'collapse' of local currencies in their home countries sometimes meant that their personal savings had effectively disappeared.

The limited funds of most of these visitors made many of them very cautious in accepting invitations to dine in local restaurants with other IEEE colleagues. They realized that equal sharing of the cost of the meal might be expected, and feared that might be unaffordable for them. Being reluctant to admit this, they typically made some excuses such as 'not feeling hungry'.

The generous subsidy programme and the Chapter Chair meetings were, in my opinion, a great success and a big catalyst in enhancing the development of IEEE activity and encouragement of R8 Chapter and Section formation.

The opportunities for these Chapter Chairs to travel and to attend the conferences, etc. resulted in a number of them being unwilling to hold elections for their successors, and in a few cases, it was clear that they also were motivated by a wish to

find a well-paid job in the 'West' to escape from what were often very poor salaries and working conditions in their home country. Whether IEEE should be proud of enabling academics to leave their home countries and emigrate for short or even permanent positions in Western Europe or North America is perhaps a matter of uncertainty.

A. *The particular contributions of the R8 Committee*

R8 has a Voluntary Contributions Fund (VCF) derived from optional payments made by IEEE members at annual membership renewal. This provides support for students and members from low-salary countries to attend conferences in R8. Academics from Eastern Europe were eligible because of the generally low salaries which they received for a number of years after the dismantling of the Berlin Wall. It thus provided help to a number of people who could have influence on the development of IEEE in Eastern Europe.

Many IEEE volunteers in 'Western' R8 had information about and understanding of the situation in Eastern Europe, and of the geographical, cultural and linguistic framework. This was generally lacking among the IEEE staff in USA and also among many senior volunteers in USA. As a result, the R8 volunteers could provide guidance and leadership which could not be provided from USA.

As a small example, when I was reporting in 2003 to the IEEE Board of Directors about my activities in R8, I described my visit to a conference in Crna Gora, where I had given an invited presentation about IEEE. I suspected correctly that the members of the Board would have no idea where Crna Gora was, and also would be too shy to ask. At breakfast the following morning, I asked the most senior member of the IEEE staff if he knew, and the answer was 'I suppose, somewhere in Africa?' Of course I had deliberately chosen to use the name Crna Gora (rather than the "English" translation Montenegro).

VI. PROGRESS AND SUCCESSES

A. *Region 8 Committee meetings in the new Sections*

After the changes, there was a rapid development of IEEE activity and formation of new Sections. An R8 Committee meeting was held in Warsaw in Spring 1991 during what were still difficult economic times for Poland.

However, growth in membership numbers was (and still is) slow. The economic changes meant that IEEE membership was unaffordable for many professional engineers and academics. Senior members of national research institutes were often able to join using other than personal funds, but in a few cases, they regarded IEEE membership as something of a privilege which they were reluctant to share with junior colleagues, feeling that would be diminish their personal status and importance.

In support of the newly formed Sections, the R8 Committee held many of its meetings in the Central and Eastern European

areas. My election as R8 Director during this time enabled me to encourage the choice of some of these locations. A meeting was in Prague, Czech Republic, in 1994 then in Berlin, Germany in 1999 in what had been East Berlin (part of the former GDR). Following this came Budapest, Hungary in 2002, Zagreb, Croatia in 2003, Kraków, Poland in 2004, Vilnius, Lithuania and Belgrade, Serbia in 2006, Sofia, Bulgaria and Bucharest, Romania, in 2007, then Riga, Latvia in 2010. At present, plans are being made to hold an R8 Committee meeting in Talinn, Estonia.



Figure 3. View from R8 Committee meeting hotel in Vilnius

Because of my prior familiarity with several of these locations, it became customary for me to provide a ‘Travel Guide’ for the R8 Committee meeting participants, and after a while some people even expected me to do that for places that I had never visited!

The Czechoslovakia Section was formed in 1992 and despite the split of Czechoslovakia into the Czech and Slovak Republics, a single Section for both has been retained, although that may not be sustainable in the long term.



Figure 4. R8 Directors (past, present and elect) in Novosibirsk

VII. THE SPECIAL CASE OF THE RUSSIA SECTION

Russia was something of a special case – a huge country with many locations which have extensive scientific and engineering activity at a high level – where one might expect, in the long term, to see many IEEE activities develop. However after the IEEE Russia Section was formed in 1990, membership growth was very slow, mainly for economic reasons, although many Chapters were formed, most with the aid of the financial support initiative from IEEE Societies,

especially Electron Devices, who, as explained above, paid for initial memberships so that Chapter formation petitions could be created, and there were many IEEE conferences held. However, Chapters in parts of Russia remote from Moscow sometimes complained of lack of support from their Section, and after a while moves to provide some independence for activities in St. Petersburg (former Leningrad) and Siberia arose. After some suggestions to form a Russia Council were abandoned, there was finally agreement to form three Russia Sections, one to be called ‘North West’ and one ‘Siberia’ – while the original Russia Section retained responsibility for all other parts of the country. Existing Chapters were transferred to the newly formed Sections where the location of their principal activities justified it.

VIII. DIFFICULTIES AND UNDERCURRENTS

A "problem" with some of the new Chapters was an unwillingness of the initial Chapter Chairs to hold elections and be replaced by other volunteers, resulting in some very long-serving Chairs. This also happened with a few of the new Sections. In the Ukraine Section, there were strong ‘differences of opinion’ between a Chapter in the East part and another in the West part!

Sometimes, the position of Section Chair or even Chapter Chair was taken by a very senior person, who was unwilling to do very much for IEEE but also unwilling to stand down and be replaced (since there was no tradition of giving up a position voluntarily). This could also be connected with an unwillingness to actively recruit new IEEE members, because the fewer their number, the more ‘important’ the Chair would feel – e.g. his “exalted” position as an IEEE member was felt to be a “privilege” which would be decreased by having other members around.

IX. THE BALTIC REPUBLICS

When the three Baltic Republics (Estonia, Lithuania and Latvia) gained their independence from Russia, there was a suggestion from the R8 Committee management to try to form a single ‘Baltic’ IEEE Section, combining the three countries. There was a mistaken belief that they were all rather similar, with languages incorrectly assumed to be Slavic! It took some persuasion to convince some senior IEEE R8 volunteers that this was not the case, and that each of the three had a very different language and culture.

An early step was the formation of a Chapter in Estonia, which was affiliated with Finland since there was no Estonia Section. I had the pleasure of announcing the formation of this Chapter to a meeting of the R8 Committee in New Brunswick, USA in Spring 1998. To the puzzlement of all except the IEEE Finland Chair, I preceded my announcement by asking the Committee to listen to some music played over the audio system – this was a recording of the Estonian National Anthem, to celebrate the formation of the first IEEE

unit in Estonia. It was immediately recognised by the Finland Section Chair because both countries share the same tune for their National Anthems, even though the words are quite different. During the time of the Soviet Union, playing the Estonian National Anthem or showing the Estonian flag were serious offences. Some time passed before the three Baltic countries had their own Sections, with the Latvia Section having only recently been established (in 2008).



Figure 5. Award for Estonia Section given in Belgrade

As mentioned in a September 1995 interview by Bob Winton (archived at the IEEE History Center and with a link from the R8 website), initial attempts to form a Lithuanian Section involved Prof. Raimundas Jasinevicius, from Kaunas University of Technology, who had established links with universities in London, England many years before, for the frequent exchange of junior academics, etc. Progress with Section formation was very slow and made slower by his absence in Denmark for six years as Lithuanian Ambassador. The Section was finally established in 2005, based mainly in Vilnius and followed by Estonia Section formation in 2006.

X. THE SPECIAL CASE OF YUGOSLAVIA

IEEE activities in the former Yugoslavia were another special case. The Yugoslav Section was formed in 1971 and became moderately active in holding conferences and in providing IEEE volunteers.

Following the wars in Yugoslavia, the existing Yugoslav Section was split into three with Slovenia and Croatia Sections formed, and the residue called the Yugoslavia Section. These three Sections were established in 1992. The newly formed countries had established their own currencies, so that the old Yugoslavia currency in effect lost all of its value. Consequently the funds in the 'blocked currency account' (described in Section IV) were never fully used and most were effectively lost by IEEE.

In 1997 a Macedonia Section was formed. Calling the residue of the original Section by the name Yugoslavia became an increasing anomaly, and in 2005, it was renamed the Serbia and Montenegro Section. Later Bosnia and Herzegovina formed a separate Section.

XI. LOCATION OF COMMITTEE AND SUBCOMMITTEE MEETINGS

Because of a number of rather new Sections wanting to host the R8 Committee, the R8 Committee management was glad of opportunities to welcome these new Sections by meeting on their territory as described in Section VI above.

The R8 Opcom meets twice per year, and comprises eight people (Director, Director Elect, Past Director, Secretary, Treasurer and the three Vice-Chairs), and meetings of such smaller subcommittees were from time to time arranged in places where a meeting of the whole R8 Committee would have been impracticable for reasons of travel cost or visa problems for some Section Chairs. For example, meetings of the R8 OpCom were held in Bucharest, Dubai and Tangier.

This applies to the even smaller R8 Nominations and Appointments (N&A) Committee, which met in Novosibirsk, Siberia in 2006, and included visits to universities, to research institutes in Akademgorodok and to an IEEE student branch at Tomsk. The R8 N&A Committee also met in Sofia and Ljubljana.

XII. STUDENT ACTIVITIES

R8 has a long and successful tradition of strongly supporting Student Activities, maintained for the new Eastern European locations. Of particular note is the Student (and GOLD) activity in Siberia, the Technical English programme initiated in St. Petersburg (former Leningrad), and the 24 hour extreme programming contests, initially in Budapest. Student branches have been very active in some countries of the former Yugoslavia.

XIII. CONCLUSIONS

The expansion of IEEE R8 activities into the countries east of the former 'Iron Curtain' can certainly be regarded as a welcome success. It has brought personal contacts, new opportunities and an awareness in that area of what may be called the 'IEEE way of doing things'. However, it may also be regarded as disappointing in that the growth in Sections, Chapters, Conferences, etc. has not been matched by a corresponding growth in participating engineers as a proportion of those present, nor in a corresponding growth in membership numbers, and it is possible to observe some continuation of the 'old way of doing things' – notable particularly in doubtful election processes in the replacement of IEEE office-holders (e.g. Section or Chapter Chairs serving in the same position for very long times) – this is, however, by no means a situation found only in the former Communist countries of Europe.

REFERENCES

- [1] David Wallechinsky & Irving Wallace, *The People's Almanac*, 1981
- [2] R. McCabe et al, *TEMPUS@20*, Education, Audiovisual and Cultural Executive Agency, Brussels, 2010

A Minutes of the meeting of the IRE Inter-Sectional Committee

MINUTES
of
Meeting
I.R.E. Inter-Sectional Committee, Europe
February 14, 1962

1. The meeting was held at the International Telecommunication Union Building, Place des Nations, Geneva, in the office of Mr. Gerald C. Gross, Secretary-General of the I.T.U.

The following were present:

Mr. Gerald C. Gross, Chairman, Geneva Section
Dr. P.M. Lapostolle, Chairman-elect, Geneva Section
Dr. W. Gerber, Vice-Chairman-elect, Geneva Section
Mr. J.H. Gayer, Secretary-Treasurer, Geneva Section
Ir. H. Rinia, Chairman, Benelux Section
Ir. G.J. Siezen, Secretary-Treasurer, Benelux Section
Mr. B.B. Barrow, Executive Committee, Benelux Section
Dr. V. Floriani, Vice-Chairman, Italy Section
Dr. G. Tarchini, Secretary-Treasurer, Italy Section
Prof. Pierre A. Grivet, Executive Committee, France Section
Prof. W. Kleen, Germany

2. Mr. Gross opened the meeting and welcomed the members of the Committee. He then turned the meeting over to Mr. Rinia, a member of the I.R.E. Ad Hoc Committee on International Activities. Mr. Barrow was asked to act as Secretary of the Committee.
3. There was a discussion of I.R.E. activity in the various countries in which Sections have been organized. Prof. Kleen discussed at some length the present situation in Germany. There is at present some opposition to the formation of an I.R.E. Section. Some people have objected that there are already too many societies, too many congresses, and that formation of a new Section might cause some young German engineers to turn away from the established German societies. Prof. Kleen believes that by the end of March it will be known whether the German societies are at present ready to support the formation of an I.R.E. Section in Germany.
4. The discussion then turned to the question of the formation of an I.R.E. Region, or of a similar body within the merged IRE–AIEE society. The members of the Committee were unanimous and strongly in favor of the formation of such a region. **It was moved** by Mr. Barrow, seconded by Mr. Gayer, that a Region of the merged society be established to include only Greater Europe, specifically excluding such territories as South America and the Far East. **The motion was passed unanimously.**

In the discussion of this motion, it was emphasized that a larger unit could not operate as a whole. It was also felt that the structure proposed in Section IV of the Principles of Consolidation for the Institute of Electrical and Electronics Engineers (Revision through January 31, 1962) would be unsatisfactory, even if Europe is given the status of a District within the region. The Committee unanimously believed that nothing less than full regional status for Greater Europe alone would be satisfactory.

5. **It was moved** by Mr. Gross, and seconded by Dr. Gerber, that the European Region should consist of all of Greater Europe, where Greater Europe is to correspond by definition to the European Broadcasting Area, defined in the Radio Regulations of the ITU, 1959 (see the Annex attached hereto). This motion **was accepted** unanimously. In the discussion of this motion, it was emphasized that this definition of the European Broadcasting Area had already been agreed upon internationally, that it therefore raised no international controversies, and that it was a workable area for a region. It was further emphasized in the discussion that it would be extremely regrettable if, for any reason, the

numerous IRE and AIEE members in the United Kingdom would be excluded from the European Region, especially in view of the recent interest shown by the United Kingdom in joining the European Economic Community. It was stressed that no decision to exclude these members could fairly be taken without their consent in a referendum.

6. **Mr. Gross then moved** that Mr. Rinia be recommended for nomination as Regional Director of the merged society, to represent the European Region, when this Region is approved. **The motion was approved by acclamation.**
7. **Mr. Rinia recommended** that the Headquarters of a European Region, when such a Region is established, should be located in Geneva. The recommendation was agreed to without dissent.

Respectfully submitted
Bruce B. Barrow, Secretary

(These minutes approved by the Committee before its adjournment.)

Geneva
14 February 1962.

ANNEX to Minutes of IRE Inter-Sectional Meeting, Europe, 14 Feb. 1962.

Extracts from Geneva **Radio Regulations**, Geneva, 1959, ITU:

- Art. 5, No. 133: The “European Broadcasting Area” is bounded on the West by the Western boundary of Region 1, on the East by the meridian 40° East of Greenwich and on the South by the parallel 30° North so as to include the western part of the U.S.S.R. and the territories bordering the Mediterranean, with the exception of the parts of Arabia and Saudi-Arabia included in this sector. In addition, Iraq is included in the European Broadcasting Area.
- Art. 5, No. 126: Region 1 includes the area limited on the East by line A ... and on the West by line B ...
- Art. 5, No. 131: Line B extends from the North Pole along meridian 10° West of Greenwich to its intersection with parallel 72° North; thence by great circle arc to the intersection of meridian 50° West and parallel 40° North; thence by great circle arc to the intersection of meridian 20° West and parallel 10° South; thence along meridian 20° West to the South Pole.

B Birth certificate



THE INSTITUTE OF RADIO ENGINEERS
INCORPORATED

August 7, 1962

To: Board of Directors
Section and Subsection Officers

From: Emily Sirjane, Office Manager

Subject: IRE Section Manual Revisions

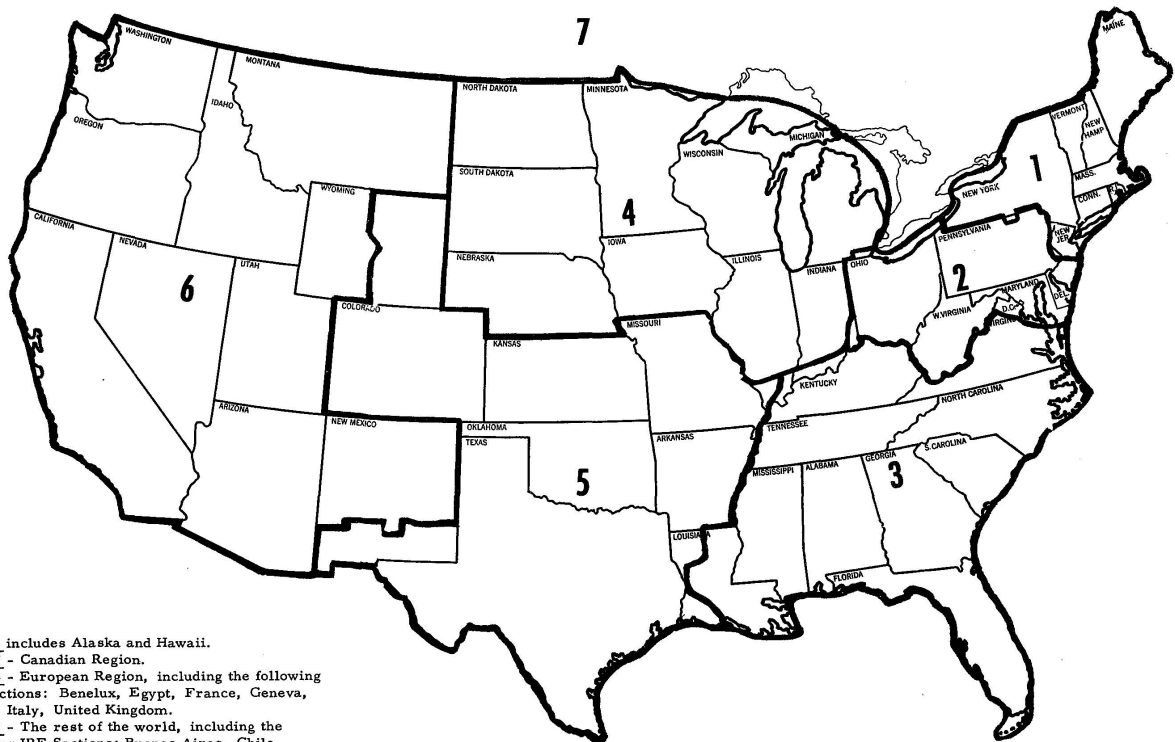
The following actions were taken by the IRE Executive Committee under dates of April 24 and July 10, 1962:

- (1) Approval of the formation of a new Region, Region 9.
- (2) Approval of the establishment of a new Section, the United Kingdom Section.

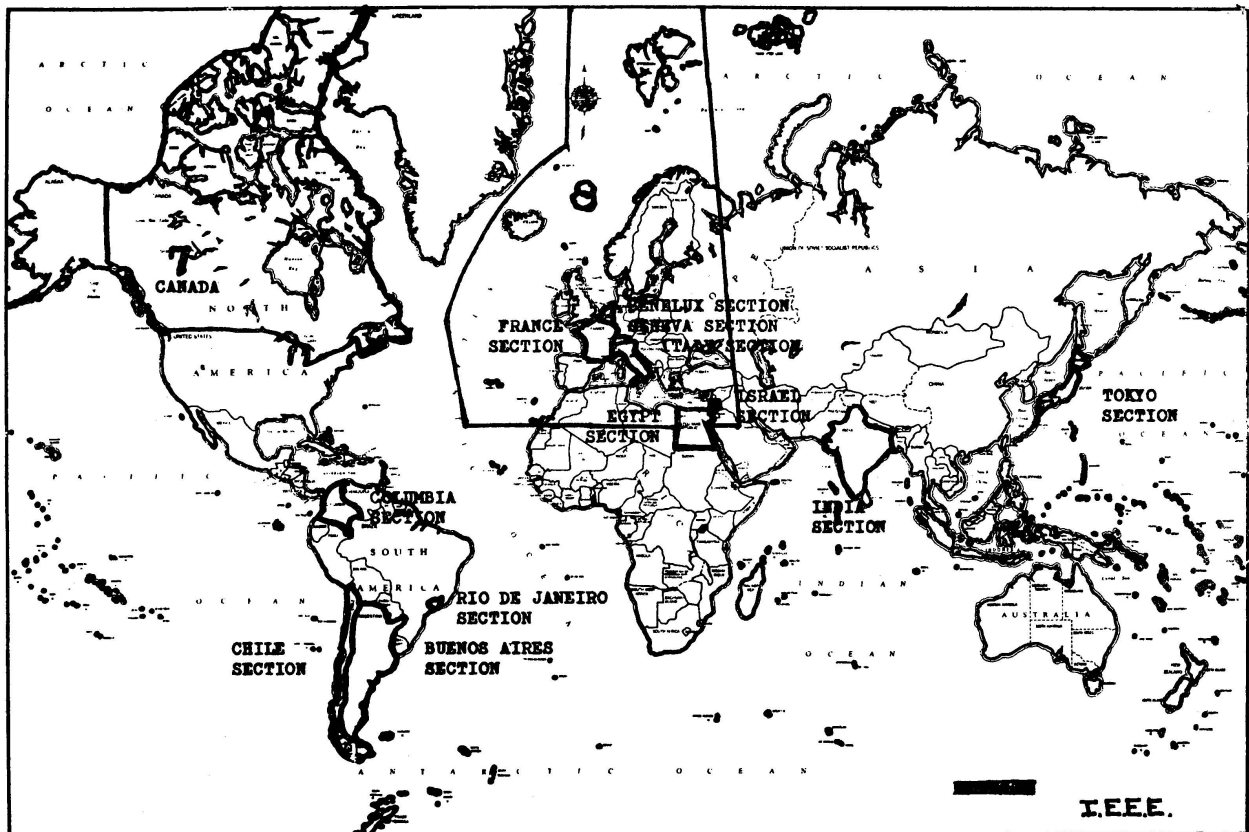
The necessary corrections have been made to the IRE Section Manual, and you are requested to substitute the enclosed sheet for that page which immediately follows the territorial assignment of Region 8 in Section 20 of your copy of this Manual.

Enclosure (1)

C IEEE Regions after the merger



Region 6 includes Alaska and Hawaii.
 Region 7 - Canadian Region.
 Region 8 - European Region, including the following IRE Sections: Benelux, Egypt, France, Geneva, Israel, Italy, United Kingdom.
 Region 9 - The rest of the world, including the following IRE Sections: Buenos Aires, Chile, Colombia, India, Rio de Janeiro, Tokyo.



D Invitations/agendas for the IRE Region 9 Committee meetings

The minutes of these IRE Region 9 Committee meetings are available in Appendix E, see E.1-E.2.

D.1 Towards the inaugural meeting on Wednesday 6 June 1962

D.1.1 Letter of 3 May 1962 – Ronald L. McFarlan

The preparation of an inaugural meeting started with a letter from Ronald L. McFarlan to Herre Rinia, dated 3 May 1962. The content of this letter reads as follows:

1912 IRE 1962
GOLDEN ANNIVERSARY
THE INSTITUTE OF RADIO ENGINEERS
INCORPORATED
1 EAST 79 STREET
NEW YORK 21, N.Y.
LE 5 - 5100

Ir. Herre Rinia
Parklaan 24
Eindhoven, The Netherlands

May 3, 1962

Dear Ir. Rinia:

Relative to your cablegram, the Executive Committee of IRE, at its meeting of April 24, established the European Region, comprising the area described in the petition: i.e., the European Broadcasting Area defined in the Radio Regulations of the I.T.U. The action of the Executive Committee anticipates certain changes to implement this action of the Executive Committee by the IRE Board of Directors at its May 24, 1962 meeting. There is no doubt in my mind that the Board will approve these changes.

According to the IRE Bylaws, Section 301.5, "Pending installation of the first Regional Director of a Region, the Chairman of the largest Section, numerically, shall act as Chairman pro-term of the Regional Committee, and the Chairman pro-term shall appoint a Secretary-Treasurer pro term."

The Section members in Europe, according to the 1961 Secretary's Report, are as follows:

| | |
|-------------|-----|
| Benelux | 185 |
| France | 168 |
| Switzerland | 134 |
| Italy | 395 |

This would mean that, according to the Bylaws, the Chairman of the Italy Section, Professor Marino, is actually Chairman pro-term of the Regional Committee in Europe.

I should like to suggest that, in my capacity as Chairman of the International Committee, I call a meeting of representatives from each Section in Europe for Geneva, Switzerland, on Wednesday, June 13, at a site to be determined by yourself and your associates. At that time, I can work out the requirements of the European Sections and set up procedures for a Regional organization which will be strictly in accordance with IRE Bylaws. If this proposal is satisfactory, please cable me as to the time and place, in order that I may make suitable transportation arrangements.

With best personal regards to yourself and your associates, I remain,

Yours truly,

R.L. McFarlan
Chairman, IRE International Committee

cc: P.E. Haggerty, Pres., IRE

D.1.2 Memorandum of 16 May 1962 – Bruce B. Barrow

The next step was the mailing of a memorandum from Bruce Barrow, dated 16 May 1962. The content of this memorandum reads as follows:

MEMORANDUM

Subject: Information Concerning the Formation of IRE Region 9
and the Proposed Organizational Meeting of June 6th
Date: 16 May 1962

On April 24th the Executive Committee of the IRE voted to approve the formation of a new IRE Region, to be identified as Region 9 and to consist principally of territory in Europe. The IRE Board of Directors are expected to vote on the question at their next meeting, which will be held on May 24th. It is anticipated that the Board will act favorably, and therefore Dr. R.L. McFarlan, Past President of the IRE and Chairman of the IRE Committee on International Activities, has called an organizational meeting to inaugurate the Regional Committee of Region 9, this meeting to be held on June 6th in Geneva.[†]

Arrangements for the meeting are being made in Europe by Bruce B. Barrow, whose address is given at the end of this memorandum. All correspondence should be directed to him.

The meeting will convene at 9.00 on Wednesday morning, June 6th, in the office of Mr. Gerald C. Gross, Secretary-General of the International Telecommunication Union, in the new I.T.U. Building, Place des Nations, Geneva, Switzerland.

Those desiring assistance in finding hotel accommodations may call Miss V. Jackson at the I.T.U. Building (tel. 34.70.00, ext. 403). All who plan to attend the meeting are urged to make hotel reservations immediately.

—
[†] This announcement notwithstanding, it is to be understood that final action concerning the establishment of Region 9 remains, as this is being written, in the hands of the Board of Directors. Should the Board decline to establish Region 9, then the June 6th meeting will be canceled, and all who have been invited will be informed by telegram.

THE REGIONAL COMMITTEE

In the IRE a Regional Committee consists of the following: (a) Section Representatives, who are chosen by their Section Executive Committees; (b) the Regional Director, who is the Chairman of the Regional Committee; (c) a few other members who are appointed by the Regional Director. All Regional Committee members must be IRE Members, Senior Members, or Fellows.

At the organizational meeting in Geneva, Dr. McFarlan will first inaugurate the Regional Committee, which at that point will consist only of the Section Representatives. The Committee will then choose a Regional Director, who will then take the chair and who may then appoint a maximum of three additional voting members (IRE Bylaw 301.6), a Chairman for the Regional Education Committee (Bylaw 301.4), and a Vice-Chairman and a Secretary-Treasurer for the Regional Committee (Bylaw 301.8).

Section Representatives. There are at present six active sections in the proposed Region 9. Each of these is entitled to two representatives on the Regional Committee (Bylaw 301.3). One of these is the section chairman, and the other is chosen by the section executive committee from among the group which consists of the other section officers and the past chairman who most recently held the office of section chairman. If the regular representatives are not able to attend the Geneva meeting, the section executive committee is authorized to appoint alternate representatives from among its membership.

Regional Director. The Regional Director represents the region on the IRE Board of Directors. In the normal course of events he is elected by the voting members in the region for a term of two years, and for Region 9 this election will be held in odd-numbered years. The election to be made by the Regional Committee in Geneva is for the unexpired portion of the current term only, i.e. until the end of 1963.

ACTION TO BE TAKEN BY SECTIONS

Each section executive committee should inform Dr. Barrow as quickly as possible of the following:

1. the names and addresses of its representatives to the Regional Committee (and of its alternates for the Geneva meeting, if any);
2. the approximate date at which the section holds its annual meeting (this is important because section representatives serve terms which extend from one annual meeting to the next);
3. any items of business that they would like to see placed on the agenda (see below).

AGENDA

When, at the meeting, organizational matters have been finished with, other items of business that have been proposed in advance for inclusion on the agenda will be considered. Finally, items may be introduced from the floor for discussion as time permits. The agenda as it stands on May 30th will be mailed to all who are planning to attend the meeting.

OBSERVERS

The authorized alternates who have been so designated by section executive committees are welcome to attend the Geneva meeting as observers even if, because of the presence of the regular section representatives, they will not be able to vote. In addition, a number of IRE members who come from places where there are not now active sections have been invited to attend as observers.

TERRITORY OF THE PROPOSED REGION 9

The proposed Region 9 is bounded on the west by the Atlantic Ocean, on the east by the meridian 40° East, and on the south by the parallel 30° North. This territory is essentially the same as that of the European Broadcasting Area defined by the I.T.U. and accepted in international law as a definition for greater Europe.

There are six active IRE sections in this territory – Benelux, Egypt, France, Geneva, Israel, and Italy. The territory includes approximately 2100 IRE members, with major groups distributed geographically as follows:

| | | | |
|---------------|-----|----------|----|
| Great Britain | 559 | Israel | 98 |
| Italy | 395 | Denmark | 86 |
| Benelux | 208 | Spain | 34 |
| France | 180 | U.S.S.R. | 32 |
| Sweden | 173 | Norway | 30 |
| Switzerland | 136 | Egypt | 26 |
| Germany | 117 | Greece | 26 |

IRE-AIEE MERGER

If the proposed merger of IRE and AIEE is approved, Region 9 will be taken over into the new society without substantial change in its organizational framework.

Please direct all correspondence concerning
the June 6th meeting in Geneva to

Dr. Bruce B. Barrow
Postbus 174
Den Haag, Nederland
(telephone 72 39 60, work)
24 12 65, home)

D.1.3 Memorandum (meeting invitation) of 30 May 1962 – Bruce B. Barrow

The next step was the mailing of a memorandum with the proposed agenda for the inaugural meeting to the following persons:

- Italy Section
Prof. A. Marino, Chairman; Mr. Virgilio Floriani, Pres. Telletra; Mr. G.P. Tarchini, Secretary
- France Section
Mr. Joseph R. Pernice, Chairman; Mr. Georges Goudet, Vice-Chairman; Mr. Jean Lebel, Secretary
- Geneva Section
Mr. Pierre M. Lapostolle, Chairman; Mr. G.C. Gross, Secretary General; Mr. John Gayer, Secretary
- Israel Section
Chairman; Mr. H. Fischler, Secretary
- Egypt Section
Mr. H.M. Mahmoud, Chairman; Mr. El-Garhi I. El-Kashlan, Secretary
- Benelux Section
Mr. H. Rinia; Mr. E.H. Herbays; Mr. C.B. Broersma; Mr. G.J. Siezen; Dr. H.P. Williams
- Observers
Prof. W.J. Kleen (Germany); Mr. Carl E. Granqvist (Sweden); Mr. Knut Endresen (Norway); Dr. R.C.G. Williams (England)

The content of the memorandum reads as follows:

MEMORANDUM

Date: May 30, 1962
Subject: Proposed agenda for the I.R.E. Regional Committee Meeting
to be held in Geneva on June 6th, 1962.

On May 24th the Board of Directors of the I.R.E. gave its final approval to the establishment of Region 9. This Region, therefore, now exists and the Committee meeting in Geneva will be an official first meeting of the Regional Committee.

It is clear that much of the effort to be spent in organizing the activities of Region 9 will be concerned with interpreting I.R.E. policies. A number of the items listed in the agenda cannot be finally acted upon on June 6th because the Regional Committee will not then have enough information to permit it to act intelligently. The Committee may, however, decide whether it is interested in pursuing the questions further; if it is so the chairman may appoint one or more persons to report further at the time of the next meeting.

PROPOSED AGENDA

1. Remarks by Dr. McFarlan concerning the duties and responsibilities of the Regional Committee.
2. Nomination and election of a Regional Director for the current term which expires at the end of 1963.
3. Appointments by the Regional Director.
4. A motion will here be introduced to accept the following items for the agenda. Changes may be suggested at this time.
5. A discussion on I.R.E. policy towards national engineering societies operating within Region 9.
6. A discussion on I.R.E. policy regarding representation of international organizations.
7. I.R.E. activities on questions of international standardization.
8. Question: In as much as the I.R.E. is a non-political organization, is it advisable for sections to be named after sovereign nations.
9. A discussion of possible organizational support from the I.R.E. for transatlantic charter flights for various conventions and symposia.
10. Discussion of a possible European I.R.E. Convention.

11. The role of the Regional Education Committee.
12. Steps which might be taken to recommend Europeans for fellow grade.
13. Question: are the present membership rules applicable to Region 9, or should they be stated differently.
14. Financial support for office expenses of the secretary of the Regional Committee.
15. Other new business.
16. Determination of date and place for the next meeting.

Dr. Bruce B. Barrow
c/o Mr. John Gayer
I.T.U. Building
Place des Nations
Geneva
Switzerland

The minutes of the inaugural meeting are available in the Appendix, see E.1.

D.2 Towards the second meeting on Monday 22 October 1962

D.2.1 Notice – John H. Gayer

NOTICE

TO THE MEMBERS OF THE I.R.E. REGION 9 COMMITTEE

The meeting of the IRE Region 9 Committee foreseen for September 24, has been postponed by the Region 9 Chairman, Mr. H. Rinia, until Monday, October 22. The meeting of Monday, October 22, will be as planned in the Conference room on the fifth floor of the new ITU building, place des Nations, Geneva, Switzerland. It is requested that all planning to attend the meeting of September 24 be informed of its postponement promptly so that the change of date will not inconvenience anyone.

The date has been changed as the meeting of the Executive Committee of the IRE Headquarters will not take place in September, but during the middle of October and our Chairman wishes to report to Region 9 Committee on the decisions of the Executive Committee. The agenda for the meeting will be sent to you later.

John H. Gayer
Secretary
IRE Region 9

D.2.2 Meeting invitation of 8 October 1962 – John H. Gayer

Date: 8 October, 1962
Subject: Proposed agenda for the Second IRE Region 9 Meeting
to be held at the ITU building, 5th floor at Place
des Nations, Geneva, on Monday, 22 October, 1962
beginning at 14.00 hours. (Room 531).

The first meeting of the IRE Region 9 was held on June 6, 1962. The Minutes of this meeting were despatched to those who attended and to the Chairman and Secretary of the Sections throughout the Region. The Committee decided that the next meeting should be held in Geneva, on Monday 22 October. The proposed agenda for this meeting is as follows:

PROPOSED AGENDA

1. Approval of the agenda of the meeting.
2. Approval of the Minutes of the first meeting.
3. Report of the Regional Director of Region 9, Mr. H. Rinia.
4. Review of the activities of Region 9 since its creation.
5. Appointment of additional officers.
6. Program of meetings and conferences of Region 9 and Sections during 1963 and 1964.
7. Possible European IRE Conference.
8. Possible Section Symposiums.
9. Arrangements for transatlantic and other charter flights for group transportation.
10. Report from Sections of Region 9.
11. Report on new Sections under consideration.
12. Membership rules applicable in Region 9.
13. Program for Region 9: Final estimate for program of office expenses of Region 9.
14. Any Other Business.
15. Date and place of the next meeting.

John H. Gayer
Secretary

Region 9

There will be a Geneva Section meeting at 5 p.m. (17.00 hours) on the same day at CERN, Meyrin, Geneva with a visit to the establishment and an explanation of the European Nuclear Research Centre, to which all are cordially invited. Transport will be arranged between the ITU and CERN; assembly point Entrance Hall of main CERN building.

The minutes of the second IRE Region 9 Committee meeting are available in the Appendix, see E.2.

E Minutes of the two IRE Region 9 Committee meetings

The following are transcripts of the minutes of the two IRE Region 9 Committee meetings.

E.1 Wednesday 6 June 1962 – the inaugural meeting

The inaugural meeting was attended by 12 people: Mr. H. Rinia, Mr. G.J. Siezen, Dr. H.P. Williams, Dr. B.B. Barrow (Benelux Section), Mr. J. Lebel (France Section), Mr. J.H. Gayer, Dr. W. Gerber, Mr. W. Baumgarten (Geneva Section), Mr. E.H. Frei (Israel Section), Mr. G.P. Tarchini, Ing. V. Svelto (representing Prof. E. Gatti, Italy Section), and Dr. R.L. McFarlan (IRE Headquarters); the Egypt Section was not represented.

MINUTES OF THE FIRST MEETING OF THE IRE REGION 9 COMMITTEE

HELD IN GENEVA ON JUNE 6, 1962

On April 24, 1962, the Executive Committee of the Institute of Radio Engineers voted to approve the formation of a new IRE Section, identified as Region 9, consisting of Greater Europe, and on May 24, 1962, approved the formation of this Section [*sic*]. Dr. R.L. McFarlan, Past President of the IRE and Chairman of the IRE Committee for International Activities, was requested to convene a meeting of representatives of the Sections concerned. This meeting was announced and Dr. McFarlan opened the meeting at 9 a.m., Wednesday morning, June 6, in the office of Mr. Gerald C. Gross, Secretary-General, ITU, Place des Nations, Geneva, Switzerland.

The minutes of this meeting are as follows:

1. Remarks by Dr. McFarlan concerning the duties and responsibilities of the Regional Committee.
Dr. McFarlan stressed that communications in general go from the IRE Board and its Executive Committee to Sections, but that Sections and especially their Chairmen and Secretaries are expected to maintain close liaison with the Regional Director.
2. Nomination and election of a Regional Director for the current term which expires at the end of 1963.
Mr. H. Rinia was nominated by Mr. G.J. Siezen and seconded by Mr. G.P. Tarchini. There were no other candidates. Mr. Rinia was elected by acclamation.
3. Appointments by the Regional Director.
Mr. Rinia thanked the Committee for electing him Regional Director and extended his thanks to the Board for establishing the Region. He thereupon appointed the Vice-Chairman, Professor E. Gatti and Secretary-Treasurer, Mr. J.H. Gayer. He advised that other appointments would be made after consideration of the program of activities for the Region had been decided.
4. IRE policy towards national engineering societies within Region 9.
At this point, Mr. Rinia assumed the role of Chairman of the meeting and invited Dr. McFarlan to speak. Dr. McFarlan said that the international policies of the IEEE after merger could be expected to continue to be those now followed by IRE. He emphasized that the European Region was in no way intended to compete with national societies and every effort would be made to maintain the closest possible friendly collaboration with them.
5. An IRE policy regarding representation of international organizations.
There are no "IRE representatives" according to Dr. McFarlan. Invitations from outside organizations can be considered and appropriate representation should be arranged. The Regional Director will bring to the attention of the Board, and the 8-man committee on merger, the fact that the Regional Committee is concerned about representation on international bodies only through USA national committees.
6. IRE activities on questions of international standardization.
The following Resolution was passed unanimously:

“Inasmuch as one of the prime purposes of the IRE is the wide dissemination of technical information, and inasmuch as the IRE is becoming increasingly concerned with the international dissemination of this information, the Regional Committee would like to call the attention of the IRE Editorial Board and of the IRE Standards Committee to the desirability of using abbreviations and symbols more closely in agreement with those recommended by the International Organization for Standardization.”

7. Question: Inasmuch as the IRE is a non-political organization, is it advisable for Sections to be named after sovereign nations?

No action was taken in respect to this question. It was decided that each case should be considered individually. Mr. Rinia stressed that he hoped that Sections would be named with care in view of the non-political character of the Institute.

8. A discussion of possible organizational support from the IRE for transatlantic charter flights for various conventions and symposia.

It was felt that charter flights should be organized to the extent possible. Mr. Rinia was to bring this up at the next Executive Committee, particularly in regard to the attendance at the IRE Convention in New York next year. It was pointed out that groups of 25 now travel at reduced rates and that the IRE no doubt qualified for this group reduced rate. It was generally felt that Headquarters in New York should arrange for group transportation to Europe and that the Region or large Sections should see in which way they could organize groups for travelling to the United States.

9. Discussion of a possible European IRE Convention.

Consideration was given to the following:

- (a) The possibility of having a Space Symposium, entitled “Electronics and Space” in the Fall of 1963 which would be sponsored by the new Region, in collaboration with other international organizations.
- (b) That it would be desirable in the foreseeable future (perhaps 1964), to organize a European Convention and a study should be undertaken to see what organizations would wish to collaborate in such an undertaking and the best time and arrangements for realizing such a project.

The Headquarters of the IRE was to be informed of these two projects of the Region and to seek their approval and advise on organizing such large meetings, in cooperation with appropriate IRE Professional Groups.

10. Other items discussed.

There was general discussion on:

- (a) The role of the regional Education Committee;
- (b) Steps which might be taken to recommend Europeans for Fellow grade;
- (c) Question: Are the present membership rules applicable to Region 9, or should they be stated differently?
- (d) Financial support for office expenses of the Secretary of the Regional Committee.

11. Other business.

The other business consisted of an informal discussion on the activities of the different Sections and how the Region could assist in the formation of new Sections in the Region.

12. Date and place for the next meeting.

It was decided that the next meeting should be held in Geneva on Monday, September 24 in the new ITU building, Place des Nations, Geneva, Switzerland.

John H. Gayer
Secretary
Region 9

E.2 Monday 22 October 1962

MINUTES
of
Second Region 9 Meeting
22nd October 1962

The Second Region 9 meeting was held on October 22, 1962 at the Headquarters of the I.T.U. in Geneva. The Agenda for this meeting is as follows:

1. Approval of the agenda of the meeting.
2. Approval of the Minutes of the first meeting.
3. Report of the Regional Director of Region 9, Mr. H. Rinia
4. Review of the activities of Region 9 since its creation.
5. Appointment of additional officers.
6. Program of meetings and conferences of Region 9 and sections during 1963 and 1964.
7. Possible European IRE Conference.
8. Possible Section Symposiums.
9. Arrangements for transatlantic and other charter flights for group transportation.
10. Report from Sections of Region 9.
11. Report on new Sections under consideration.
12. Membership rules applicable in Region 9.
13. Program for Region 9: Final estimate for program of office expense of Region 9.
14. Any other business.
15. Date and place of the next meeting.

The minutes of this meeting in respect to the above items of the Agenda are as follows:

1. The Agenda as proposed was adopted.
2. The minutes of the first meeting were approved.
3. The interesting report of the Regional Director, Mr. H. Rinia was appreciated and it was decided that action in respect to the region would be further considered in the next meeting after the merger of IRE and AIEE.
4. The Director reviewed the activities of Region 9 since its creation and outlined the desire to have new sections.
5. There was no further appointment of officers. The officers exist to remain in office to 1964.
6. The interesting program of meetings and conferences were reviewed and sections agreed to advise others of their program of activities and meetings.
7. The detailed consideration of the possible European Institute Conference was postponed until the next meeting.
8. The Section Symposium proposed by the Geneva and Paris Sections were explained.
9. There was a further discussion of the desired arrangements for transatlantic and other charter flights for group transportation. It was decided that the Paris Section would be in the best position to arrange for such transportation for the 1964 Convention and that Headquarters – New York should be requested to consider making such arrangements for those in the United States and Canada wishing to attend meetings in Europe.
10. The Chairman or representatives of the Sections in the Region gave interesting reports on the program of activities.
11. The Chairman reported on the creation of the new section in the United Kingdom; advised that the Swedish section would be created and expressed the efforts to have new sections in Germany and other countries.

12. The membership rules applicable in Region 9 were explained and it was decided that these should remain in force until the Region had the opportunity to further consider how these applications could be considered on a regional basis.
13. The Director explained the desire to have two meetings of the Region during each year and that the expenses for one representative to attend each meeting would be reimbursed, instead of having the expenses for two representatives for the attendance of one meeting per year. It was noted that \$500 had been made available for the expenses in operation of the Secretariat in Region 9 and this would be adequate for some time, with the expenses that are at present being incurred.
14. Under Other Business, views of the representatives were exchanged, at which time it was agreed that at the next meeting specific proposals in respect of various problems would be made.
15. It was decided that Regional meetings for the time being would be held in Geneva and the next meeting would be held in April 1963, which would be timely due to the fact that the Director would be returning from a Directors meeting in the United States. The Secretary was requested to advise the sections as early as possible of the proposed date of the meeting and confirm it as soon as Mr. Rinia knew the date of the Directors meeting so that it could be conveniently scheduled after his return.

John H. Gayer
Secretary
Region 9

F Invitations/agendas for the early IEEE Region 8 Committee meetings

The minutes of these IEEE Region 8 Committee meeting are available in Appendix G, see G.1-G.5.

F.1 Monday 22 April 1963 – the first IEEE Region 8 Committee meeting

Date: 16th April 1963

Subject: Proposed agenda for the First IEEE Region 8 Meeting
to be held at the ITU building, 5th floor at Place
des Nations, Geneva, on Monday, 22 April, 1963
beginning at 10.00 a.m. in Room 530.

The first meeting of IEEE Region 8 will be held on Monday, 22 April, 1963, as set out in the note of 1 April, 1963. The minutes of the last IRE Region 9 meeting will be available on this date, but copies will be sent as soon as possible. The proposed agenda for this meeting is as follows:

PROPOSED AGENDA

1. Approval of the agenda of the meeting.
2. Approval of the minutes of the meeting held on 22 October 1962.
3. IEEE Constitution and By-laws.
4. Report of the Regional Director, Mr. H. Rinia.
5. Merger of IRE and AIEE into IEEE.
6. Possible symposia and conventions.
7. Representation at Regional Committee meetings.
8. Reimbursement of travel expenses for attendance at Regional Committee meetings.
9. New Sections.
10. Possibility of attempting to organize charter flights or group accommodations for the IEEE meeting in New York next year.
11. Regional IEEE publications – organization and assistance in preparation.
12. Any Other Business.
13. Date and place of the next meeting.

John H. Gayer
Secretary
IEEE, Region 8

NOTE: Lunch, 12.30 hrs. in U.N. Dining Room.
Refreshments courtesy Geneva Section.

The minutes of the first IEEE Region 8 Committee meeting are available in the Appendix, see G.1.

F.2 Monday 4 November 1963

INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERING [*sic*] INC. (IEEE)

REGION 8

The next meeting of the Regional Committee will be held on Monday, November 4, 1963 at 10.00 a.m. in Room 530, Fifth floor, ITU Building (International Telecommunication Union), Place des Nations, Geneva, Switzerland.

AGENDA

1. Opening of meeting and Minutes of previous meeting.
2. Report by the Regional Director on the last IEEE Board meeting, and especially on the new publishing policy.
3. Is it desirable to change certain rules of IEEE for our Region?
4. The general problem of holding Section Meetings.
5. Co-operation with national societies.
6. Coming IEEE Conferences in Region 8.
7. Any other business.
8. Date and place of the next meeting.
9. Closing of meeting.

John H. Gayer
Secretary

NOTE: Any suggestions concerning the agenda should be sent as soon as possible to the following address, together with any requests for reservations for accommodations:

John H. Gayer
Secretary, Region 8, IEEE
c/o International Frequency Registration Board
International Telecommunication Union
Place des Nations
Geneva, Switzerland

The minutes of the second IEEE Region 8 Committee meeting are available in the Appendix, see G.2.

F.3 Monday 27 April 1964

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS INC. (IEEE)

REGION 8

The next meeting of the Regional Committee will be held on Monday, April 27, 1964 at 10.00 a.m. in Room 531, Fifth floor, ITU Building (International Telecommunication Union), Place des Nations, Geneva, Switzerland.

AGENDA

1. Opening of meeting and Minutes of previous meeting.
2. Report by the Regional Director.
3. Nomination and election of candidate(s) for the post of IEEE Director of Region 8.
4. EUSEC and the relations of IEEE Sections to national societies.
5. Possible inclusion in the Geneva Section of members in Austria, Czechoslovakia, Hungary and Yugoslavia.
6. The reactions of members to the new IEEE publications.
7. Reports of Section representatives.
8. Nominations for awards.
9. Coming IEEE conferences in Region 8.
10. Any other business.
11. Date and place of the next meeting.
12. Closing of meeting.

John H. Gayer
Secretary

The minutes of the third IEEE Region 8 Committee meeting are available in the Appendix, see G.3.

F.4 Monday 26 October 1964

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS INC. (IEEE)

REGION 8

The next meeting of the Regional Committee will be held on Monday, October 26th, 1964 at 10.00 a.m. in Room 531, Fifth floor, I.T.U. Building (International Telecommunication Union), Place des Nations, Geneva, Switzerland.

AGENDA

1. Opening of meeting and Minutes of previous meeting.
2. Report by the Regional Director.
3. Result of I.E.E.E. elections.
4. Reports of Section Representatives.
5. New Sections.
6. Nomination for Awards.
7. Coming IEEE Conferences and meetings in Region 8.
8. Finances of Region 8.
9. Questions from the incoming Regional Director.
10. Instructions for completion of IEEE forms.
(see attached copy-letter from IEEE Section Norway)
11. Formation of new Sections in Europe.
(see attached copy-letter from IEEE Section Norway)
12. Any Other Business.
13. Date and place of the next meeting.
14. Closing of meeting.

John H. Gayer
Secretary

COPY

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
Incorporated
SECTION CORRESPONDENCE

IEEE Section Norway
Box 47
Kjeller, Norway
5 October 1964

Mr. John H. Gayer
Secretary
IEEE Region 8
Box 820, ITU
1200 Geneva
Switzerland

Dear John:

I have received your notice of the Region 8 committee meeting to be held on 26 October. I would like to propose two items for the agenda as follows.

1. Region 8 Instructions for IEEE forms

We have made up a list of Norwegian-vs-American experience and education such that a prospective member can fill out an application in a manner that is meaningful to the IEEE in New York. Recently two men telephoned me to ask what the American equivalent of their respective German and Swiss education was; – I could not answer. A simple list compiled in every section would help solve such problems. My correspondence with the IEEE in New York indicates that it is impossible for them to put European letters on their addressograph plates. Therefore I also suggest that a list of official post department English transliterations of European letters be tacked onto such a Region 8 instruction form.

2. New Sections in Europe?

What can Section Norway do to help section formation in the rest of Scandinavia? Are we pushing things (at the risk of offending national societies) if we offer help? What can be done to help section formation in non-section countries?

Sincerely yours

M.M. Brady
Secretary-treasurer
Section Norway of the IEEE

The minutes of the fourth IEEE Region 8 Committee meeting are available in the Appendix, see G.4.

F.5 Monday 26 April 1965

THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS INC. (I.E.E.E.)

REGION 8

The next meeting of the Regional Committee will be held on Monday, April 26, 1965 at 10.00 a.m. in Room 119, 1st floor, I.T.U. Building, (International Telecommunication Union), Place des Nations, Geneva, Switzerland.

AGENDA

1. Opening of meeting and Minutes of previous meeting.
2. Report by the Regional Director.
3. Result of I.E.E.E. Elections.
4. Report of Section Representatives.
5. Nomination for Awards.
6. Coming I.E.E.E. Conferences and meeting in Region 8.
7. Any Other Business.
8. Date and place of the next meeting.
9. Closing of meeting.

John H. Gayer
Secretary

Geneva, 23rd March, 1965

(If you require an air ticket for this travel, please let us know, as we could purchase one here and send it to you. Of course this would be for one Officer of the Section, i.e. the Chairman, the Vice Chairman or the Secretary, authorized to represent the Section at the Regional Meeting).

The minutes of the fifth IEEE Region 8 Committee meeting are available in the Appendix, see G.5.

F.6 Tuesday 7 September 1965

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS INCORPORATED

REGION 8

From: John H. Gayer
Secretary
IEEE Region 8
ITU, IFRB
Place des Nations
1211 Geneva 20
Switzerland

IMPORTANT

To the Chairman of
IEEE Region 8 Sections.

July 15th, 1965

Dear Sir:

Plans for the visit of the Institute's President, Dr. B. Oliver, and General Manager, D. Fink, have firmed up. They will visit our Region during the first half of September.

Both Dr. Oliver and Mr. Fink will attend our Regional Committee Meeting during their stay in Geneva. Consequently we have moved the previously announced date and place of the meeting to September 7th (Tuesday) at 9.45 a.m. in room 531, 5th floor, ITU Building, in Geneva, Switzerland.

Having the Institute's President and General Manager among us at a Regional Committee Meeting is a rare privilege which will provide all of you with the opportunity to ask specific questions directly to the heads of our Institute. At the same time, Dr. Oliver and Mr. Fink have expressed their interest in seeing first hand what are the special problems facing the Sections of Europe.

We feel sure that you will want to try to personally attend this exceptional meeting.

Yours sincerely,

John H. Gayer
Secretary
IEEE, Region 8.

Jean D. Lebel
Director
IEEE Region 8.

THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS INC.

REGION 8

The next meeting of the Regional Committee (to meet Dr. Oliver and Mr. Fink) will be held on Tuesday, September 7th, 1965 at 9.45 a.m. in Room 531, 5th floor, ITU Building (International Telecommunication Union), Place des Nations, Geneva, Switzerland.

AGENDA

1. Introduction of Section Representatives to the Institute's President, Dr. B. Oliver, and General Manager, D. Fink.
2. Minutes of previous meeting (April 26th, 1965).
3. Report by the Regional Director.
4. Finances of Region 8.
5. Report of Section Representatives.
6. Matters to be brought to the attention of the Henderson Committee to study how IEEE can increase its value to the members outside the United States.
7. Questions by Section representatives to the President and/or the General Manager.
8. Date and place of next meeting.

John H. Gayer
Secretary

(IEEE Geneva Section
c/o IFRB, ITU
Place des Nations
1211 Geneva 20
Switzerland).

G Minutes of the early IEEE Region 8 Committee meetings

The following are transcripts of the minutes of the first IEEE Region 8 Committee meetings.

G.1 Monday 22 April 1963

REPORT ON THE FIRST MEETING OF IEEE SECTION 8 [*sic*]

held in Geneva on Monday April 22, 1963

The following people attended:

- From England (1103 members): Dr. Williams, Mr. Barton
- From Norway (42 members): Mr. M.M. Brady
- From Switzerland (193 members): Dr. Gerber
- From Benelux (approximately 300 members): Prof. Jespers, Mr. Broersma
- From Italy (approximately 200 members): Dr. Svelto
- From France (264 members): J.D. Lebel

The Israelian and Egyptian sections were not represented. Together, they have about 300 members. If our figures are correct, the total membership in the region is of the order of 2200.

2. Approval of the minutes of the meeting of October 22, 1962. – The minutes, copies of which are attached, were approved.
3. IEEE Constitution and Bylaws. – Boundaries of sections are decided in last resort by the Board of Directors who follow the advice of section and regional directors. It is recommended that the sections hold five meetings a year, but for a certain time, headquarters will look with indulgence upon sections who do not hold that number of meetings. Benelux section sent invitations to their meetings to the local engineering societies through the headquarters of those societies, whereas Italy invite members of local societies directly. It is recommended that every section have a section publication.
4. Report of the Region Director, Herre Rinia. – Board Meetings were held for two days in January in New York and on April 18th in Dallas. Travel expenses to send either the Chairman, Vice-Chairman or Secretary of a section to the regional committee meeting two times a year were approved at the January Board meeting.

However, section officers must bear in mind that due to the merger of IRE and AIEE, the new engineering society is operating at a deficit of \$1/2 million a year. This is due to the fact that 60,000 members of AIEE have seen their dues of \$25.00 a year reduced to the IRE dues of \$15.00 a year at the time of the merger. It is impossible to raise the dues, because IRE would not have voted the merger if this had taken place. IEEE however, has total assets of \$3 million in convertible issues (40% stocks – 60% bonds) and \$4 million in buildings. In addition, there are approximately 1,000 new members coming in each month. All together, the IEEE now has 160,000 members of which 27,000 are students. It seems that the situation is certainly not dramatic, but it requires that every section's officers bear it in mind. IEEE expenses are mostly due to mailing, and this might be reduced by elimination of duplicate mailing between AIEE and IRE members.

Professional Groups, which are considered to be one of the major growth factors in IRE are presently operating at a loss.

Uncle Sam, following the merger, is looking carefully into the finances of IEEE. It is interesting to know that the sections alone hold assets of approximately \$600,000.

Travel expenses for Region 8 alone would amount to about \$2200 a year of which 1/3 is for the Israel representative and 1/3 for the Cairo representative.

5. Merger of IRE and AIEE into IEEE. – Dr. Williams, Chairman of the English Section learned by accident that Sir John Hackay had been appointed Secretary of AIEE for England. If such a person

exists within the boundaries of a section or region, it would be good to try to have him on the section board.

6. Possible symposia and conventions. – Dr. Williams inquired about the sponsorship by the region of the International Telemetry Conference to be held in London at the end of September. Herre Rinia suggested that announcements of this conference should be sent to section chairmen. If companies within the French Section would see the possibility of organizing group tours for 10 or 20 American scientists, specialists in the telemetry field, they should report it to Dr. Williams.
7. Representation at region committee meetings. – It was already mentioned that travel expenses will be paid for one delegate twice a year. However, sections are encouraged to send two delegates. Even so, there will be only one vote per section represented at the regional meeting.

The IEEE Board is made of directors at large who are elected for three years and regional directors who hold office for two years. In order to provide a certain continuity of action, it has been decided to replace regional directors of odd numbered regions in odd years and even numbered regions in even years. Regional directors are nominated by the regional committee and are afterwards elected by mail by the membership. Herre Rinia, whose term of office had been for one year should have been replaced in 1963 if the region had remained number 9 as it was under IRE jurisdiction. But, at the time of the merger it became region 8, which presented a “case de conscience” to Herre Rinia. Following a suggestion by Dr. Williams, in favor of continuity, the regional committee unanimously voted to continue the term of office of Herre Rinia until 1964.

8. Reimbursement of travel expenses. – Only tourist class transportation was approved. Expenses should be labeled as follows: hotel, breakfast, lunch, dinner, tip, taxi, laundry, other, ticket cost (including the ticket). The receipts should be included for Uncle Sam. When converting from local currency into dollars, one should allow a reasonable safety margin for the exchange rate.
9. New Sections. – Norway is the new-born section. Germany is having a difficult delivery. Denmark and Sweden are running into serious difficulties with local engineering societies. There are 30 members living in USSR. Maybe a USSR Section could be started, provided the Popov Society would be allowed to have one in New York.
10. Possibility of attempting to organize charter flights or group accommodations for the IEEE meeting in New York next year. – Because of the necessity of leaving from the same airport, it was generally agreed that this should be left to the sections themselves. However, Professor Jespers mentioned that members residing in Belgium would welcome the opportunity of joining members leaving from Paris.
11. Herre Rinia would welcome news letters.
12. Other business. – As time was running short, no other business was discussed.
13. Date and place of next meeting. – Geneva, November 4, 1963.

Respectfully submitted,

J.D. Lebel

G.2 Monday 4 November 1963

REPORT ON THE SECOND MEETING OF IEEE REGION 8
held in Geneva on Monday, November 4, 1963

The following people attended:

- From the United Kingdom and Eire: Dr. Williams, Mr. Barton
- From Norway: Mr. Brady
- From Switzerland (Geneva Section): Dr. Gerber, Mr. Gross, Mr. Gayer
- From Benelux: Professor Jaspers, Mr. Broersma, Mr. Lulofs, Mr. Rinia
- From Italy: Dr. Svelto
- From France: Mr. Lebel

The Israelian and Egyptian sections were not represented.

2. Approval of the minutes of the meeting of April 22, 1963. These were approved after slight correction has been made.
3. Report by the Regional Director emphasized the advantages of cooperation with existing societies and associations by IEEE Sections and suggested that new Sections might be formed in this way.

Reference was made to the difficulties experienced by Sections concerning membership lists. A cable was sent to President Ernst Weber. It read as follows:

“FOR URGENT ATTENTION ERNST WEBER STOP EUROPEAN REGIONAL COMMITTEE MEETING IN GENEVA TODAY SERIOUSLY ALARMED AT CONFUSION IN RECORDING SUBSCRIPTIONS FROM OUR MEMBERS AND ERRORS IN MEMBERSHIP LISTS STOP THIS DAMAGING PRESTIGE IN REGION 8 AND MAY LEAD TO RESIGNATIONS INCLUDING DISTINGUISHED AND LONG STANDING MEMBERS”

John Gayer, Secretary

4. Desirability to change certain rules of IEEE for our Region. The general feeling of those present was that it seemed desirable to change certain rules of IEEE for our region: specific recommendations were made in order to:
 - (a) reduce the requirements of 15 members attending the Section meeting to 10% of the membership for Sections having less than 150 members.
 - (b) reduce the number of meetings held per year to less than 5 for Sections which must operate under a language handicap, such as the French Section which must compulsorily have all its meetings in English.
 - (c) Dr. Williams of the United Kingdom Section suggested that the Section Committee Chairman be elected instead of nominated by the Section Chairman.
 - (d) After further discussion, Mr. Barton, Past Vice-President of IRE, suggested that in the European Region, many rules of IEEE could be freely interpreted provided New York would be informed of it. However, Mr. Rinia, Regional Director, pointed out that it was difficult to have special rules for our region since IEEE is a non-national society. It was most important that the IEEE did not lose its identity.

Inasmuch as the operation rules for the European Region present some special problems, it was felt to be important that our region should have, within the IEEE Executive Committee, a permanent representative familiar with the European affairs. Mr. Rinia promised to ask Professor Weber if he would agree to represent our Region.

5. General problems of holding Section Meetings. These remained at more or less the same level, except in the case of the French Section which had been on probation for the year 1962 owing to the lack of a sufficient number of meetings. The main reason for this state of affairs was given as the difficulty encountered in attracting a sufficient number of speakers speaking English, in order to comply with the language requirement of holding Section meetings.

6. The cooperation with national Societies seems to be excellent at the level of each European Section.
7. Coming IEEE conferences in Region 8. Dr. Williams reported on the International Conference of Magnetic Recording to be held in early July 1964 in London, sponsored by the British Institute of Radio Engineers.
8. It was agreed that the date and place of the next meeting would be announced early in 1964.

John H. Gayer
J.D. Lebel

G.3 Monday 27 April 1964

REPORT ON THE THIRD MEETING OF IEEE REGION 8
held in Geneva on Monday, April 27, 1964

The following people attended:

- From Benelux: Prof. P.G.A. Jespers
- From Cairo: Mr. Fathy Geith
- From France: Mr. J.D. Lebel
- From Geneva: Dr. W. Gerber, Prof. F. Borgnis, Mr. A.W.C. Boyle
- From Italy: Professor E. Gatti
- From Norway: Mr. M.M. Brady
- From Federal Republic of Germany: Dr. L. Rohde
- From United Kingdom of Gt. Britain and Northern Island [*sic*]: Mr. F.S. Barton
- Director of IEEE Region 8: Ir. H. Rinia
- Secretary: Mr. J.H. Gayer

1. **Minutes of the meeting of November 4, 1964** [*sic*]. These were approved with minor correction.
2. **Report by the Regional Director.** The Regional Director reviewed IEEE activities since the last meeting. He referred to the fact that the Directors' Meeting had considered the existing situation of IEEE and that it was running at a loss. Of the \$6 million budget, only \$1.8 million came in from dues. Expenses were high for publications, organisation of meetings, travel, etc. It had been suggested that dues be raised and that possibly next year some dues would be increased; printing, publications and a staff of more than 300 had to be paid. Mr. Rinia added that there were 4600 Members of Region 8, but the total numbers accounted for were only 3000 – i.e. 1600 had “disappeared.” The statistics as available were:

| | | |
|------------|------|---|
| Benelux | 290 | (67 students) |
| Cairo | 71 | |
| France | 258 | (290 believed to be the correct number) |
| Geneva | 250 | |
| Israel | 121 | |
| Italy | 528 | (184 students) |
| Norway | 59 | (65 believed to be the correct number) |
| U.K. | 1038 | |
| W. Germany | 155 | |

The letter from Mr. Fink of November 1, 1963 was noted and a letter of thanks was to be sent to him.

Mr. Fathy Geith (Cairo Section) noted an increase in the number of publications, and asked what members thought of this. A general discussion followed.

Mr. Rinia said that subscribers to Proceedings now totalled more than 56,000 and could be roughly accounted for as follows:

| | | | |
|------------------------------|---------|--------------|--------|
| Higher grades of membership: | 130,000 | Proceedings: | 46,000 |
| Students: | 30,000 | Proceedings: | 4,500 |

In Region 8, more than 50% subscribed to Proceedings; this number comprised members and students. It was suggested that Spectrum or Proceedings would be more suitable for students, at least in Region 8, instead of the special student publication which was nicely made but not very serious concerning the treatment of technical matter. The recruitment of students into the IEEE Region 8 was slow. Many in Italy and the Benelux had even stopped membership. Proceedings was not taken by many students although many were considering it. Since special students' meetings are not being held this might account for some of the lack of new student members. The replacement of the student magazine by Spectrum was supported unanimously.

3. **Nomination of candidate(s) for the post of IEEE Region 8 Director.** Mr. Jean Lebel was unanimously nominated as Regional Director of Region 8, 1964/1965 [*sic*]. A cable to this effect was sent to IEEE Headquarters with background information to be furnished.
4. **EUSEC and the relations of IEEE Sections to national societies.** The problem was that when IEEE was formed by the merger of IRE and AIEE, AIEE had been a national society and as such was a member of EUSEC. Representatives of the engineering societies of Europe and North America meet every two years, a number of which are organized in the U.S.A., the U.K., Germany, Holland, etc. There was now conflict: should IEEE step out or not? At last year's meeting the President and Secretary attended on behalf of IEEE and asked questions on future policy. It was decided that IEEE could be a member but in view of its scope and concept and existing bylaws it was questionable whether this was appropriate.
5. **Possible inclusion in the Geneva Section of members in Austria, Czechoslovakia, Hungary and Yugoslavia.** There was no objection to this matter. Norway suggested that the same treatment for Sweden and Denmark could be made if Sections were not to be formed there.
6. **Reactions of members to the new IEEE publications** (this item refers also to No. 3 above). Some representatives felt that there were now too many publications on the market and many people did not have sufficient time to read all of them. IEEE publications should have a new concept. Gaps in engineering knowledge could be filled from good professional publications, or trade publications for which a practical knowledge gave appreciation. Mr. Geith said he had written a letter to Professor J.D. Tyder, Editor of Proceedings to suggest that Proceedings could carry research; Spectrum should keep the average engineer informed; specialized items should be in Transactions of the professional groups. Furthermore there seemed to be a gap vis-à-vis the practical engineering aspect.

The United Kingdom representative said that in his view these three publications were good; Transactions was really worth reading.

The Norway and Cairo Section Representatives said it was important that all spellings be checked and any abbreviations used be carefully considered as in their languages short forms were misleading, for example: R \ddot{o} a was correct, not ROA; Ås was correct, not As. Copies of lists of addresses should be sent to Region 8 for verification.

A copy of all publications should be sent to the Secretaries of Region 8 and 9, and each of their Sections.

7. **Reports of Section representatives.** The aspects concerning the reports were:
 - Germany: Joint meetings are held, discussion groups are organized, suggestions for speakers requested.
 - France: Lecture series (Wellinger and Goode), suggestions for lecturers sought, some could possibly give talks at two or three Sections.
 - Norway: Problems of correct addresses, membership growth from 42 when formed last year to 65 now.
 - Italy: Country to have two Sections this year: one for North Italy (Milan) and the other for Central and Southern Italy.
 - Geneva: International meetings have good response; Section forming professional power group and others under consideration.
 - Benelux: Trouble with receiving publications reported.
 - Cairo: Majority are electrical¹⁰ engineers. Have problem with payment of dues. Great interest from students. Ways of transferring funds to be studied (especially for students).
 - U.K.: Friendly co-operation exists with the Institution of Electrical Engineers, and other organizations.

¹⁰Manually corrected to 'electronic.'

In the discussion that followed, the representative of France said that joint meetings were being held as English speaking experts were difficult to locate; this was a common problem to Sections of Region 8. It was suggested that a Regional newsletter would be welcomed.

8. **Nominations for awards.** All Sections need to have Fellows. Italy has no Fellows. The problem exists in reference to support necessary i.e. nominations for new Fellows have to be made by other Fellows. Assistance in this connections was necessary between Sections of Region 8. The matter was to be tabled at the next Board meeting and the next Session of the Fellow Committee. Other awards should be considered.

9. **Coming IEEE Conferences (Region 8).**

| | | |
|----------------|---------|---|
| 1965 May | U.K. | Components and Material |
| 1965 September | U.K. | Microwave ferrometry and plastics |
| 1965 September | Germany | World-wide communications |
| 1965 May | Geneva | International television symposium (Montreux) |

10. **Other business.** The need to suggest a representative for the Fellow Committee to replace or assist Professor Borgnis during July, August and September was mentioned. Dr. Smith-Rose was nominated.

Mr. Lebel suggested the creation of a Region 8 publication as discussed at the last meeting; the publication could include an editorial promotion of IEEE, engineering interests and problems. U.S.A. and Japanese firms would be interested in European publicity and it was therefore suggested that such a publication would be financially sound but to find adequate staff and a responsible editor was another question.

11. **Date and place of next meeting.** Monday, October 26, 1964 in Geneva.

John H. Gayer
Secretary Region 8, IEEE

G.4 Monday 26 October 1964

REPORT OF THE FOURTH MEETING OF IEEE REGION 8
held in Geneva, Monday, October 26, 1964

Present:

| | |
|---------------------------------|--|
| Ir. W. Lulofs, Benelux | Dr. A. Shani, Israel |
| Mr. Abdel-Latif I. Ahmed, Egypt | Mr. M.M. Brady, Norway |
| Mr. J.R. Pernice, France | Dr. R.C.G. Williams, United Kingdom & Eire |
| Dr. R.P. Wellinger, Geneva | Mr. F.S. Barton, United Kingdom & Eire |
| Mr. A.W.C. Boyle, Geneva | |

Ir. H. Rinia, Director, IEEE Region 8
Mr. J.D. Lebel, Director-elect, IEEE Region 8
Mr. J.H. Gayer, Secretary, IEEE Region 8

Excused:

| | |
|---------------------------------|----------------------------|
| Prof. Dr. F.E. Borgnis, Geneva | Mr. C.B. Broersma, Benelux |
| Dr. Dr. L. Rohde, West Germany | Mr. J.T. Wallmark, Sweden |
| Dr. H.H. Burghoff, West Germany | |

1. The report on the third meeting held on April 27, 1964 was approved.
2. **Report by the Regional Director.** Mr Rinia reviewed IEEE activities since the last meeting and reported on the IEEE Executive Board meeting held in Chicago the previous week. Among other matters, he mentioned that there was a great desire to have a Technical Activities Board, which would be quite large and include representatives of all the Professional Groups. A question was raised as to whether transportation expenses would be available for representatives of Region 8 and 9, on which no decision was taken. It was pointed out, however, that in the future, transportation expenses would probably be available for Fellowship Committee representatives in the future. The situation in reference to income was not encouraging and there was general feeling that it may be necessary to raise the dues, particularly in view of the fact that the membership fees bring in less than 50% of the revenue. The famous IRE Headquarters at 79th Street had been sold and the entire IEEE Headquarters would soon be housed in Lenox Hill Station. The electronic computer put in use was much larger than that which was originally foreseen and was equipped with extensive software. The total staff of the IEEE Headquarters, numbering 290, would possibly be reduced by 40 through the use of the electronic computer. It was pointed out that considerable improvement in bringing records and addresses up-to-date had been possible, and it was suggested that Members and Sections could themselves be of help in calling attention to any further irregularities. In the future, it was planned, at a cost of \$60,000 an issue, and in addition to the revenue collected from advertising, to send the Directory to all Members. The minimum time for the publication of an article in "Transactions" and "Proceedings" was about four months. Letters to the Editor are considered highly important and are published with a delay of only two weeks. The policy is to maintain the attained goal of having the "top" electronics publications in the world. There are about 60,000 subscribers to the Proceedings.

A question was raised as to whether it would be beneficial to publish a paper appearing in "Proceedings" in "Transactions" as well. The answer given was that only a small number of papers are published in "Proceedings" and an effort was made to publish different material from that appearing in other IEEE publications. It was considered that duplication should not be necessary. Of the 280 papers submitted to "Proceedings" 74 were accepted (40% rejected, 34% referred for publication elsewhere and 26% accepted).

The Director read from an IEEE paper on publication policy and objectives – "Abstract of Editorial Report to the Board of Directors, October 20, 1964, J.D. Ryder." It was suggested that a copy of this

interesting paper should be sent by Headquarters to all Sections. There was still great interest in the possibility of "Spectrum" being made available at least to European students, instead of the Student Journal. The Director pointed out that it was at least hoped to have "Spectrum" sent to all graduate students as an alternative publication next year, for which an additional \$ 60,000 would be required. There was general feeling within the Region 8 Sections that the Student Journal was inadequate.

3. **Results of IEEE Elections.** The results of the IEEE elections were not available. Ballots were to be distributed the following week. Difficulties arose in Region 4 over the election procedure. There was no problem concerning the election of the Director of Region 8, Jean D. Lebel being our nominee. It would, however, be interesting to see the percentage of vote for the Region 8 Director and for President of IEEE.
4. **Reports of Section Representatives.**

U.K. & Eire:

Dr. Williams reported that there was no great change. The Section maintained the closest possible collaboration with the IEE. 200 to 300 meetings are held each year, so the Section sees no need to have separate IEEE meetings. During the last twelve months there had been 3 conferences at which IEEE participated and which were well attended and successful. The question was raised over international conferences and whether or not they were to be sponsored by IEEE or by a Section of IEEE. It was decided that conferences could be sponsored either by Sections, Region 8 or IEEE as a whole. Care should be taken to schedule meetings and conferences so that there was a minimum of conflict. In this respect, the provisional schedule of future conferences of the Institution of Electrical Engineers, in which the IEEE would in most cases collaborate, is set out in Annex 1. Difficulties in scheduling conferences and meetings in order to avoid conflicts were discussed. It was pointed out that in some cases, European meetings are very popular and, in one instance at least, a meeting in the United States had been dropped in view of a conflict with a Region 8 Conference.

Geneva:

Dr. Wellinger reported that a lecture series on Engineering and Space held at the University, Lausanne, had been highly successful and that well over 200 attended. Efforts were being made to form a Power Group in Zurich, but to date no-one had shown sufficient interest to organize the Group and schedule an organizational meeting. It was pointed out that the only conference with which the Geneva Section IEEE would be concerned in 1965 would be the International Television Symposium, which would be held in Montreux from 24th to 28th May.

Israel:

Dr. A. Shani reported. Only two meetings had been notified to Headquarters, but the possibility existed for joint meetings with the AIEE. The Israeli Section wanted to publish a Journal¹¹ in the Spring of 1965. In that way a contribution could be made to the National Convention and to technical interest. It was not proposed to have a specialized journal, but one with wide interest. Other interests were the possibility of coordinating with other engineering societies in the preparation of the journal, but even so, financial assistance was required. It was pointed out by the Director that the Israeli Section may wish to solicit help from Headquarters in respect to publication assistance and it might be that some of their articles could be sent for publication in the IEEE publications and that reprints could be requested for the use of the Section. However, the problem was a general one and, in the main, Sections would have to arrange for financing their own publications.

Norway:

Mr. M.M. Brady reported that five meetings were held and two meetings were already planned for next year. Norway would appreciate proposals and IEEE help in arranging for speakers. A conference is planned on the automatic control of the peaceful uses of space for June 1965. Help is being provided by

¹¹In the corrected version, 'a Journal' has been replaced by 'the proceedings of the Israel Communication Convention'.

the Norwegian Section to promote the conference and to print the proceedings. There will be a Nordic Solid State Conductors Conference from 4th to 9th January, 1965. This had proved to be a popular conference and was being held at a wonderful ski resort. It was suggested that similar conferences might be arranged in popular and enjoyable places.

Benelux:

Ir. M. Lulofs reported that the membership of the Benelux Section had grown from 85 to 290 in 1963, and to 365 in 1964. Four independent meetings were held this year, but unfortunately, the special annual meeting had to be cancelled because of small announced attendance. Co-operation with other organizations on holding meetings was necessary to secure sufficient attendance. Dr. Stumpers was organizing a conference for next September.

Egypt:

Mr. Abdel-Latif reported that the membership had grown from 80 to 90 this year and it was hoped that there may be 150 members by the end of next year. Seven meetings had been held which were well attended – about 80 persons present. Good co-operation existed with Egyptian Engineering Societies. The Section was very anxious to obtain one copy of all the IEEE Headquarters publications which would have to be free-of-charge as the Section funds were not sufficient to cover membership in all groups. Due to financial regulations, membership in professional groups is difficult especially in view of the relatively high costs and in this respect it was urged, as did a number of other Sections, that there be no increase of dues. Difficulties were pointed out in connection with pending subscriptions for the library as the price was too high, and the point was made which was supported by many Section representatives that the cost to scientific technical libraries should be at least the same as for Members. An invitation was extended to members of IEEE to visit Cairo, at which time meetings could perhaps be arranged, at least with the officers, as was done on the occasion of Mr. Rinia's visit in 1962 and Mr. Gayer's visit in 1964. No special conferences were planned for 1965, but it was pointed out that the Section planned to organize the International Television Symposium in 1966.

France:

Mr. J.R. Pernice reported that good co-operation existed with the French Society which has a strong program and it was up to the Section to provide important speakers with a new message. The existence of the Section depended on the introduction of new ideas and developments which would be given in English when arranged by the Section. It was pointed out that the Executive Committee when visiting Europe to assist in the organization of new Sections, had promised support and help, and one of the first things the Section needed – and that all Sections of Region 8 probably needed – was the IEEE Headquarters to encourage visitors coming to the Region to organize a program of interesting papers for presentation at the different Sections. The Section itself had no special meeting place and efforts were being made to find a convenient place to meet, with the facilities required. Attempts need to be made to up-grade membership and to help in nominating candidates for the grade of Fellow. This was endorsed by several other Section representatives.

5. **New Sections.** The letter from Professor J.T. Wallmark was read in reference to the organization of a Swedish Section, in which it was pointed out that it was not necessary for Headquarters IEEE to waive the requisite 50 signatures for the organization of a Section. In general, 20 to 30 signatures for a Section, as was foreseen in Sweden, were adequate. It was also pointed out that it was opportune to organize a Section in Madrid where an IEEE Student organization exists and actually had its own excellent publication. It is believed that Region 8 could help in the organization of the Swedish and Spanish Sections.
6. **Nomination for Awards.** The Director announced there would be no medal of honor this year and that the decision had been taken in respect to the other awards and fellowships. The procedure for proposing Fellowships was discussed and it was agreed that the Sections themselves should make direct efforts in proposing Members for the grade of Fellow. If the Section needed help in securing support, it was

pointed out that the minimum number of recommendations required for the presentation of a nominee should be obtained within a Section but those could be endorsed by other Fellows in the Region in order to secure full consideration by the Fellow Committee.

7. **Coming IEEE Conferences and Meetings.** The IEEE International Convention will be held in New York, March 22–26, 1965. There was hope that some of the Members from Region 8 who would be attending might get together informally with the Director-elect, Mr. Jean Lebel, on this occasion. The meetings and conferences to be held in Region 8 were reported on under item 4 above.
8. **Finances of Region 8.** The Treasurer, Mr John H. Gayer, reported on the financial situation of the Region. A considerable part of the grant of \$500 received from IEEE Headquarters in 1962 was still available. The expenditures were:

| | |
|--|---------------|
| Postage, telegram (1962) | 30.00 Sw.frs |
| Postage, telephone, telegram (1963) | 93.25 Sw.frs |
| Postage, telephone, telegram (1964) | 42.00 Sw.frs |
| Bank Service Charges (1962/63) | 3.80 Sw.frs |
| Paper, envelopes, stencils, supplies, reproduction charges | 120.00 Sw.frs |
| | 389.05 Sw.frs |
| | = 92.87 USD |

Balance: \$500 less \$92.87 = \$407.13

Therefore, it had cost approximately \$100 for the two years of operation (in 1962 very few expenses were incurred). It was pointed out, however, that in future there may be additional expenses and the requirements of Region 8 would grow and cost might be involved in respect to various activities in the future. Accordingly, it was decided that a request should be put to Headquarters IEEE for half of the \$1.10 rebate per Member for the Members in Region 8 who are not in a Section. In this way, the Region would have some income in the immediate future and could undertake to assist Sections and perhaps in “non-section” areas in ways it was not able to do at present.

9. **Incoming Regional Director.** Mr. Lebel raised some points concerning the importance of bringing back into the organization Members lost in the merger. He hoped that all Sections had now their By-laws in order. The possibility of organizing charter flights for the purpose of attending IEEE Conventions and various meetings being held in Europe was mentioned.
10. **Instructions for completion of IEEE forms.** Mr. Brady of Norway reported on the experience of the Norwegian Section in completing forms. He brought out the fact that many of the terms used in Europe were different from those used in the United States and that Sections could prepare a simple list of American equivalents in respect to those used in other Sections. Mr. Brady distributed a paper on what had been done by the Norwegian Section and offered to put together a collection of operative terms for the Region. It was accordingly decided that each Section would send its contribution in this respect direct to Mr. Brady who would prepare a reference document for use by the Sections and the Headquarters of IEEE. Mr. Brady asked that each Section might prepare a list similar to that made by Norway (see Annex 2) and send it to him as soon as possible, but in any case within one month. There was a general belief that University Admission Boards, particularly in the United States, Educational Departments of Governments and large companies would be able to help in this respect.
11. **Formation of New Sections in Europe.** Mr. Brady again reported on the efforts his Section had made to assist in the organization of the Swedish Section and raised the question in which further way the Sections of the Region might be of help in the formation of new Sections in areas where no Section existed. The details in reference to the formation of the Swedish and Spanish Sections are reported on under 5 above. However, at this point it was stressed that further efforts should be made to help in the formation of a Danish Section. With the existing Sections’ help, addresses in the “non-Section”

areas could be corrected, but in some cases financial assistance from headquarters might have to be requested to cover the cost. The Region 8 Committee should take this matter under further review at its next meeting.

12. **Other Business.** As this was the last meeting at which Mr. Rinia would preside as Director, he outlined the work of the Committee and stressed how much he had enjoyed working with the Sections and their representatives and considered it a great privilege to have been the first Director. He was quite pleased with the accomplishments of the Region and thanked everyone for their assistance. However, he felt there was much left to be done and regretted that it had not been possible for him to visit all the Sections. He expressed appreciation to the Sections that he had visited for their warm reception and found it a great pleasure and privilege so to represent the IEEE. He closed by wishing all success to the future work of the Region and to Mr. Lebel's Directorship. He pointed out that few Members were as well qualified as Mr. Lebel for this task, as he had experience of Sections both in Europe and in the United States.

Dr. Williams, on behalf of the Committee, expressed the great appreciation of the Region for the work, leadership and untiring efforts of Mr. Rinia. He endorsed Mr. Rinia's remarks that the Region was being left in good hands. He concluded with a vote of thanks and appreciation to Mr. Rinia, and extended to him the very best wishes for the future and noted with satisfaction that the Committee would be seeing him at future meetings of the Region.

Mr. Lebel responded by expressing his appreciation for the kind remarks and also his personal feelings for the responsibility of succeeding Mr. Rinia as Director of the growing Region 8. He said he would be guided by the policies and examples set by Mr. Rinia's high endeavour in this undertaking. He was also pleased to note that Mr. Rinia would continue to participate in the work of the Region for the next two years, as his advice both to the new Director and to the Region was so important.

13. **Place and date of next meeting.** It was decided that the next meeting would be held in about six months' time and the tentative date of Monday, April 26, in Geneva was set. However, a general desire was expressed to hold at least one of the two meetings outside Geneva, whereupon it was decided to take the matter up with headquarters, IEEE. It was pointed out that it would cost very little more to hold meetings in other central locations of Europe, particularly in view of the fact that more outlying Sections were represented at Regional meetings.

John H. Gayer
Secretary, Region 8, IEEE

13 November, 1964

G.5 Monday 26 April 1965

REPORT OF THE FIFTH MEETING OF IEEE REGION 8
held in Geneva, Monday, April 26, 1965

Present:

| | |
|---|--|
| Mr. C.B. Broersma, Benelux Section | Mr. M. Eggestad, Norway Section |
| Prof. F.E. Borgnis, Geneva Section | Mr. R.C. Winton, U.K. & Eire Section |
| Mr. A.W.C. Boyle, Geneva Section | Mr. F.S. Barton, U.K. & Eire Section |
| Dr. A.I. Nizan, Israel | Dr. R.C.G. Williams, U.K. & Eire Section |
| Mr. De Lotto Ivo, Italy Section (for Prof. E. Gatti) | Mr. K. Franz, Western Germany Section |

Ir. H. Rinia, former Director, IEEE Region 8
Mr. J.D. Lebel, Director, IEEE Region 8
Mr. J.H. Gayer, Secretary, IEEE Region 8

Excused:

Representatives of Egypt Section
Mr. Joseph R. Pernice, France Section
Mr. R. Wellinger, Geneva Section

1. The report on the fourth meeting held on October 26, 1964 was approved with the following correction to Page 3, 2nd paragraph, 3rd line: "... publish the proceedings of the Israel Communication Convention in the ..."
2. **Report by the Regional Director.** As the newly elected Director of IEEE Region 8, John Lebel welcomed all representatives of the Sections and expressed the hope that all would cooperate with him in carrying out the goals and programme of activities established under the excellent chairmanship of Mr. Rinia. Mr. Lebel looked forward to the guidance of the Past Director, whose presence at future Regional Meetings would be appreciated. The Director outlined the success of the IEEE's International Convention and explained the results of the meetings held during that time. In that respect, he pointed out that the revenues from publications were reduced, that there was a slight increase in membership dues and also in publications subscriptions. Headquarters had experienced an increase in salaries which had been offset by the reduction of staff possible through the use of an electronic computer, The Headquarters of the IEEE were now established in the Engineering Building, and the late headquarters of IRE were being sold. There was a general feeling of optimism in respect to the administration of finance, although there was an overall deficiency of 6%–7% in the income. Subscription rates for students is being reduced from \$5 to \$3, and the Student Journal was being mainly directed towards under-graduate students. For Senior and Graduate Students, it was realized that "Spectrum" was preferred. This will in future be sent to all Senior Students during the last six months before graduation. Graduate students and Student Members in Region 8 would also receive "Spectrum."

The important work of the Fellowship Committee was discussed. It was pointed out that it was important to have a European Representative who would be able to attend, with expenses paid, one meeting of the Fellowship Committee. It was pointed out that if a member were recommended for Fellowship Membership and he was not elected, it was necessary for a new application with full recommendations and justification to be resubmitted at a later date. Fellowship application was not automatically carried over for consideration the following year.

In reference to the report of the Director, Dr. Williams – the Region 8 Fellowship Committee representative – pointed out that IEEE, as a non-national organization, should give careful consideration to the awarding of Fellowships to Region 8. In this respect, he pointed out that the nomination procedure

was familiar to United States members which may not be the case for European members. It was important for the members of Region 8 to present their nominations in the same form, with the justification. The Region 8 representative at the IEEE 1963 Committee stressed the important work of this Committee and the necessity for Region 8 to be represented to present their viewpoint, as full understanding is difficult through correspondence. The Director, in this respect, pointed out that the position of Region 8 had been recognized, as there was 3% of Fellowship Members in Region 8 as against 1.7% for the Institute. He pointed out that members of the Henderson Committee could help in this respect, particularly concerning efforts to obtain Fellow Members in all Sections. He also outlined the number of IEEE Awards given each year in which the Region 8 members should now be interested. He stressed that this could be taken up with someone familiar with the European scene and perhaps the matter could be discussed again with Messrs. Henderson, Weber and other officers of IEEE who may be coming to Europe this year.

Dr. Williams stressed the importance of the IEEE throughout the world and that it was now a confirmed non-national society. However, effort should be made to present such an image. A number of the representatives felt that the IEEE definitely presented an American image. The Director called attention to the March edition of the IEEE Spectrum and to the article "Spectral Lines" which set forth the policy of IEEE in this respect. He also outlined the difficulties with the merger and said that now with the General Manager, Donald Fink, efforts were being made to have an effective Administration and to cater to all the members' requirements. Dr. Williams stressed that it was important to have someone in Europe who was a paid member of Headquarters but who could ensure that the needs, membership requirements and interest of the members in Region 8 were fully met. There was a need to bill members in local currency and for a procedure to be found whereby Sections or the Regional Headquarters could operate as a sub-office of the New York Headquarters. Mr. Gayer pointed out the administrative difficulties of a sub-office, and stressed the importance of informing the New York office as he had found prompt response on any queries raised with them. Mr. Rinia pointed out the desirability of each Section being visited and hoped that Mr. Lebel would be able to do this during his term when the officers of the Headquarters of the Institute came. Mr. Barton pointed out that the President Mr. Barney Oliver would be coming to Europe in June. Mr. Lebel advised that the General Manager, Donald Fink, would also be coming to Europe this Summer and expressed the hope that he could meet with a number of the Sections, or perhaps a Regional Meeting would be held so that they could attend. The Director advised that no doubt Mr. Weber would also be coming over this Summer as well. The Director outlined many of the statistics that were published in the Report of the Secretary for 1964. These statistics are not reproduced because of their magnitude, but a copy will be sent to each Section.

3. **Result of IEEE Elections.** The Director advised the Committee of the results of the elections in which there was a total of 606 ballots cast (20% of the members voting) of which 596 voted for the President and 553 voted for Mr. Lebel's appointment. This was considered as a firm expression of the interest of members.
4. **Report of Section representatives.** The Director pointed out that there was now available a series of publications: Section Manuals, Manuals for IEEE Professional Groups, Student Branch Manual, and a Manual for IEEE Counselors. If Sections do not have these available, they could request them from European Headquarters. There was general discussion of the student interest in the IEEE wherein it was outlined that the students had great interest in the Institute from an educational point of view and their dues had been worked out at a rate they could afford. Students should be encouraged, but an effort should be made to ensure that IEEE was not in competition with the National Societies. Professor Borgnis outlined his contact with students, and was in fact a Student Counselor. He gave advice on IEEE publications, but could not advise them further because of his position in the Technical Institute, Zurich. He felt it would be more beneficial to have a graduate student serve as the IEEE Educational Counselor.

Benelux:

Membership in the Benelux Section is stable. The Section is on probation because they did not have five meetings in 1964. It was thought a solution to this might be to report a full day's meeting as two meetings – morning and afternoon.

The Director said that it may be possible for the Henderson Committee to consider this matter. Also, Sections could consider having joint meetings, as these would help to bring the IEEE into the engineering activities of different countries and provide the necessary number of meetings for the record, per year.

U.K. & Eire:

There have been many new developments in the U.K. & Eire Section. Mr. Barton headed the working party which prepared the By-laws to bring the voting procedure into effect. In 1963 five meetings were held, two in 1964 and in 1965, five to six meetings would be held. The IEEE would co-sponsor a number of meetings during the year; one was a five-day conference on Materials and Components used in Electronics Engineering (see previous minutes) on 17–25 May. Quite a number of complaints had been received on the handling of subscriptions and IEEE Headquarters had not replied to certain letters. Mr. Barton had written to Mr. Fink concerning these matters and he hoped that the matter could now be put in good order. The representatives pointed out the importance of representation of Region 8 at the Awards and Fellowships Committees. The lack of efficient administration at Headquarters was stressed.

Italy:

The Italian representative reported that they had difficulty in organising meetings, as the National Society was very strong and held many meetings in Italian, catering to the local interest. There was only one meeting held last year and two this year; unfortunately attendance was poor. They had complaints concerning answers from Headquarters. They are trying to form two Sections in Italy – one in the North and one in the South, to be centered in Milan and Rome respectively. At the moment, meetings are held in Milan and the creation of a Section in Rome might stimulate greater support. A Committee has been set up to arrange for the elections and to make proposals concerning the organisation of the Section.

Israel:

The representative pointed out that they had difficulty with formal meetings and accordingly, not sufficient meetings had been held and the Section was therefore on probation. The organization of their Convention on Components was proceeding satisfactorily and they hoped that a number of members from the Region would be able to attend. It was pointed out that a number of the contributions could be published in the IEEE Transactions. The Section was requesting two sets of all IEEE publications which they intended to display at the Convention.

Norway:

This Section now had 76 members – an increase of 30% and joint IEEE meetings were being successfully arranged. The Convention held in February had been a great success. The attendance of the Director at this meeting was appreciated. Publication of the Norway Vector was being resumed.

W. Germany:

The German Section was established on May 14th, 1965 [*sic*], with Dr. Rohde the Chairman. The letter of Dr. Fink on the organization of the activities was appreciated. The IEEE Section will collaborate closely with the active National Society which has 5000–6000 members. This is practical as there is a personal union of executives and many close contacts are assured. There were now 180 members in the Section.

Geneva:

This Section had many successful meetings in 1964. In reporting, Past President Prof. Borgnis said that meetings were held both in Geneva and Zurich and the plans for the future were to hold meetings in Geneva, Zurich, Berne, Lausanne, Neuchâtel, etc. Many of the meetings held at the Federal Institute Zurich, were jointly arranged. For this reason and due to the excellent speakers the large attendance was accounted for. The special event of the Geneva Section would be the collaboration in the 4th International Television Symposium which would be held from 24th to 28th May, 1965 in Montreux. Mr. Gayer pointed out that wide recognition had been given to this Symposium and it was hoped that the IEEE, as an Institute, could collaborate more actively in the 5th one which would be held in the Spring of 1966.

France:

The Chairman of the French Section was unfortunately not able to be present, but sent the following written report: Six technical meetings were held in 1964 and until the present date we have had two meetings. There are good prospects for some additional eight or ten meetings, covering a wide field of technical subjects. All of the speakers are solicited from the United States by the Chairman of the French Section, principally, by correspondence. The program of the IEEE French Section, in effect, supplements that of the Société Française des Electroniciens et Radioélectriciens, and makes available to the combined membership, additional technical subjects and speakers which would not normally be found on the SFER programs.

5. **Nominations for Awards.** There were no nominations or considerations for awards. The Secretary pointed out that the Cairo Section had forwarded two names for Fellowship awards for which he hoped there would be sufficient support at the meeting for endorsement. Those Fellow members present would be approached, if the Committee agreed, and asked to support the applications and to send off the recommendations forthwith, as the deadline for submission was very near. The Secretary also said that if Sections needed help in this respect, this should be sought at a very early date, as it was very difficult to obtain the necessary support at the last minute. In general, it was felt that the Section should deal with the recommendations for Awards, and if they needed help, they should consult the Director, or other members of the Committee with whom they were acquainted, as it was in general not appropriate for the Regional Committee to deal with recommendations.

The Director pointed out that the Medal of Honor was not being awarded this year and it might be that Sections wished to review the IEEE Awards that are made and send in their nominations at the earliest possible date.

6. **Forthcoming IEEE Conferences and Meetings in Region 8.** The representatives of the U.K., Israeli and Geneva Sections referred to the IEEE Conventions with which they were collaborating, or which they were organizing. In this respect, it was considered that the Sections which were organizing Conventions and different activities, should inform Headquarters of all other Sections of Region 8 as early as possible in advance of their forthcoming events.
7. **Other business.** The Director reported that there was now an International Committee under the Chairmanship of John Henderson, which was known as the Henderson Committee. A meeting of this Committee was held at the March Convention which was attended by Messrs. Rinia, Henderson, Lebel, McFarlan, Weber and Willenbrock. All Sections had been invited to send representatives, but unfortunately not all Sections were able to do so. The Committee considered many of the points referred to above, including the Mailing and Membership Subscription problems. An effort would now be made since the merger problems were now over, to provide better service to members, and again it was pointed out that local banking services for Sections was an important matter to consider. It was highly important that distinguished IEEE members visiting other countries, particularly Headquarters officers, should announce their visit in advance and let the Section Chairman or Secretary know of their availability to speak.

Dr. Williams, Chairman of the U.K. and Eire Section, remarked that the IEEE was attempting to be a non-national organization, but in fact it was a title only. It was operating as a national society. He

appreciated the value of visits made by IEEE Head-officers, as they needed to know the situation and the activities of all Sections – not only those in the United States. He hoped that the Executive Board of the IEEE could give consideration to setting up a European office with someone familiar with European situation in charge. The Director pointed out that a number of the Headquarters staff knew the European situation; Mr. Keyes, Assistant to the General Manager, has a Secretary who is European. He hoped that through the further efforts of the Headquarters of IEEE, and on specific suggestions of the members of Region 8, this Committee and the Sections, the situation could be cleared up.

Further mention was made of the technical activities, the work of the Fellowship Committee, the rebate to Region 8 of \$1.10 or 50% thereof for Region 8 finances of members dues when they are not a member of a Section, members lost in the merger, IEEE membership notification cards concerning the membership, the establishment of the Swedish and Danish Sections; the operation of the Spanish Student Group, where there was apparently not a sufficient number of members to warrant the formation of a Spanish Section. The publications of various Sections were circulated, at which time the hope was expressed that more European Sections would be able to have an IEEE Bulletin or Newsletter, at least once in a while.

8. **Date and place of next meeting.** The Director pointed out that the next Board meeting would be on August 26, but that the Regional Committee meeting could be held after this, later in the Fall, according to the wishes of the Committee. The Committee decided to accept the kind invitation of the U.K. Section to have the next meeting in London, subject to the agreement of the Headquarters, IEEE, in respect to the additional expenses that would be incurred.

NOTE OF THE DIRECTOR.

In view of the discussions that took place on the proposal of the IEEE President, Barney Oliver, and the General Manager, Donald Fink to visit Europe, it was thought that the next meeting could be held in London or Geneva and arranged at the time when they would be able to attend. The itinerary and details of Mr. Fink's visit have been requested in order that the date of the next meeting can be arranged in a way that they can attend. It is possible, in view of the International Telecommunication Union's Centenary activities that they may, on this occasion, desire to spend considerable time in Geneva, and the next meeting would accordingly be held in Geneva in September for their convenience, and to make it possible for maximum attendance. If this is the case, the first meeting of 1966 could be held in London. Members of the Committee will be advised of the date, agenda and place as soon as decided upon.

Jean D. Lebel
Director

John H. Gayer
Secretary

IEEE Region 8

29 June 1965

Index

- Abandah, 38
Abbas, 38
Abdel-Latif, 177, 179
Abo ElSaoud, 106
Abou-Chadi, 109
Aboud, 97
Abu-Elhaija, 109
Adeyemi Adekanye, 97
Adleman, 88
Akar, 31, 36, 97–99
Al Awwad, 35
Al Mansoori, 98, 106
Al Thani, 35
Al-Dabal, 97
Al-Dandan, 35
Al-Dhahir, 82
Al-Ibrahim, 30, 34, 96
Al-Mushcab, 35
Alamouti, 93
Alashwali, 109
Ali, 96
Alimi, 36–38
Aliyu, 32, 37, 38, 98
AlMomani, 98
Amara, 36
Amin, 37, 38
Amirah, 108
Ampofo-Anti, 98
Andrieu, 102
Angelini Enel, 78, 81
Anglade, 35
Anleitner, 97
Anliker, 88
Antoniou, 32, 36, 37
Antyufeyeva, 38, 109
Arakawa, 77
Arikan, 76, 81
Arink, 33
Arthur, 82
Arvaniti, 31, 36
Astrom, 74, 82, 83
astrzebski, 37
Attard, 37
Audiche, 103
Aydogan, 96
Baal-Schem, 33–36, 95, 103
Babaee, 37, 38
Baccarani, 83
Baets, 90
Bailey, 9
Baillie, 102
Baker, 34, 96, 112
Balen, 95, 109
Baltes, 82
Ban, 87
Bandeiras, 37
Baran, 86
Barbara Vujkov, 37
Barlow, 88
Barnevik, 81
Barros, 31, 36
Barrow, 7–11, 13, 14, 147, 148, 152–155, 158
Barton, 170, 172, 174, 177, 182–184
Bastiaans, 30, 31, 37, 38, 40, 95, 125
Batool, 109
Baumgarten, 11, 158
Baydin, 109
Baykas, 37, 38
Bedford, 86
Bekkadal, 30
Ben Hmida, 38
Benediktsson, 102
Berger, 89
Berkner, 7–9
Berrou, 76
Beute, 100
Bhattacharya, 77
Biamond, 11, 13
Biglieri, 82
Bigo, 102
Bimberg, 77
Birand, 34
Bjontegaard, 85
Blaabjerg, 75, 89
Bošković, 31
Boeck, 85
Boescke, 94
Boldea, 93
Bolinder, 27, 33, 39
Bolomey, 87
Bonnabel, 102
Boone, 85
Borgert, 29, 30, 34

- Borgnis, 33, 174, 176, 177, 182, 183, 185
Borowka, 31
Boskovic, 38
Bouaouina, 109
Bourlard, 84
Boyle, 174, 177, 182
Bozdagi Akar, 29, 33, 96
Brady, 166, 170, 172, 174, 177, 178, 180
Brand, 82
Brandenburg, 85
Brantingham, 85
Broersma, 10, 154, 170, 172, 177, 182
Broggi, 75
Bruch, 94
Bruel, 83
Bult, 92
Burgard, 91
Burghoff, 177
Bux, 93
Byford, 33, 34, 95, 112
- Calderbank, 82
Calvaer, 77
Capolino, 35
Carassa, 86
Carpentier, 79, 103
Carter, 9
Castanheira Marques, 37
Castro, 36
Chatzinikolaou, 37, 38, 109
Chelangat Koech, 109
Chertok, 78
Chiariglione, 85
Chukwudebe, 36, 37
Chunga, 100
Cigaran Romero, 37
Ciok, 96
Clover, 81
Coe, 75
Coetzee, 100
Colinge, 84
Constantinides, 93
Correia de Barros, 38
Cory, 96
Costa, 109
Costa Freire, 33, 35
Coudreuse, 92
Couillet, 102
Cristoloveanu, 84
Crowcroft, 87
Crudgington, 37
Csiszar, 76
Cunningham, 38
Curtis, 97
Czyz, 96
- D'Andrea, 91
Dabbs, 36, 37
Dahl, 78
Danciu, 109
Davidson, 103
Davies, A.C., 16, 18, 29, 30, 33–37, 40
Davies, D.W., 86
Davies, R.E., 94
De Doncker, 78, 89
De Hoop, 76
de Jager, 86
De Lotto, 182
De Man, 92
De Rooij, 77
de Vrijer, 27
De Weerd, 34
Debbah, 102
Debono, 31, 35, 97
Deboy, 75
Decina, 86
Declerck, 90
Deeb, 105
Defrise, 92
Deleonibus, 83
Delimar, 30, 31, 36, 40, 80, 96, 97, 124
Deloraine, 86
Deo, 38, 105
Devenish, 33, 112
Di Renzo, 102
Dietrich, 90
Dietz, 86
Diggavi, 82
Dimcev, 103
Dimirovski, 111
Dinca, 36, 98
Dolivo, 87
Dorigo, 91
Douillard, 102
Doyle, 81
Dragoumanos, 36, 37
Drangeid, 28, 33, 39, 124
Duffield, 100
Dummer, 83
Dupuis, 79

- Durrani, 30, 34, 101
Dyson, 80
- Earnshaw, 81
Efthymiou, 37, 38
Eggestad, 182
Eggimann, 27, 33
El Jamal, 38
El-Bitar, 36
El-Dallal, 98
El-Debeiky, 103
El-Garhi, 154
El-Khamy, 103
El-Mousa, 30, 31, 35
Eldar, 94
Endresen, 154
Eriksson, 31, 34, 36, 37, 40, 85, 96, 100
Evans, 78
- Faist, 75
Fant, 84
Farahini, 97
Farina, 78
Farkas, 34
Ferguson, 77
Ferrero, 87
Feser, 81
Fettweis, 88
Fichtner, 84
Fiedler, 81
Figueiras, 35, 98
Figueiredo, 81
Fink, 168, 169, 174, 183, 184, 186
Fischler, 154
Floriani, 147, 154
Flynn, 79
Foda, 96
Forrest, 89
Fouad Hanna, 34, 35
Fouad-Hanna, 36, 37, 96
Fourou, 36, 37
Franceschetti, 84
Francis, 81
Franklin, 83
Franz, 182
Frei, 11, 158
Friend, 89
Frohman-Bentchkowsky, 75, 89
Funso Abedayo, 36
- Gabor, 74
- Gao, 102
Gatti, 11, 27, 158, 174, 182
Gaur, 98
Gayer, 11, 27, 147, 154–156, 158, 159, 161–169, 172–174, 176, 177, 179–183, 185, 186
Geith, 174, 175
Gerber, 11, 147, 158, 170, 172, 174
German, 34
Ghassemian, 31, 37
Ghiotto, 102
Giddings, 33
Girard, 102
Gjengedal, 34, 36
Glavieux, 76
Gloegl, 35
Glover, 83
Gokce Aydal, 35, 108
Goode, 175
Gordon, 98
Goser, 33
Goudet, 154
Graca, 98, 106, 109
Granqvist, 154
Gream, 103
Greefkes, 86
Griffiths, 78
Grivet, 147
Groeseneken, 83
Gross, 147, 148, 152, 154, 158, 172
Gudbjornsson, 102
Gudmundsson, 102
Gueguen, 100
Gul, 98
Gutsmiedl, 35
- Haase, 36
Hackay, 170
Hagenauer, 74
Haggerty, 151
Hagleitner, 82
Hajnsek, 81
Hancke, 29, 95
Handley, 87
Hannemann, 33, 34
Hanzo, 93
Harker, 99
Haroche, 79
Harrington, 30, 31, 33
Hasler, 88
Hassan, 35

- Hatziargyriou, 85
 Haug, 79
 Hayes, 92
 Haykin, 101
 Helfrich, 77
 Henderson, 9, 169, 183–185
 Herbays, 154
 Herrero, 31, 35, 108
 Hierlemann, 82
 Hill, 35
 Hilsum, 91
 Hinchey, 32, 37
 Hirzinger, 91
 Hoare, 78
 Hochmair, 74
 Hochmair-Desoyer, 74
 Holtz, 77
 Hoydis, 102
 Hrnjic, 38
 Huang, 35, 36, 109, 112
 Huber, 90
 Hudson, 92
 Hutton, 92
 Hylten-Cavallius, 81

 Ibe, 105
 Ibrahim, 105
 Inacio, 36, 38
 Ince, 86
 Irmer, 86
 Isidori, 84

 Jachowicz, 103
 Jackson, 152
 Jacobeus, 74
 Jafarkhani, 93
 Jaggar, 79
 James, 31, 37, 97
 Jan Haase, 36
 Jancke, 85
 Janes, 36
 Jasinevicius, 17
 Jastrzebski, 31, 32, 36, 38
 Jespers, 27, 39, 112, 170–172, 174
 Joffe, 36, 95
 John Funso-Adebayo, 37
 Jones, 34
 Josephson, 79
 Justesen, 82

 Kaabunga, 37, 38

 Kadar, 36
 Kaissi, 35, 98
 Kallel, 38, 109
 Kammoun, 37, 38, 98, 103
 Karadzinov, 31, 32, 37
 Kas, 109
 Katajamäki, 33
 Katalinić, 36, 105
 Katalinic Mucalo, 109
 Katić, 35
 Kavaz, 37
 Kazmierkowski, 35, 78
 Keller, 75, 90
 Kelly, 74, 88
 Kennel, 31
 Keyes, 186
 Khaddaj Mallat, 36
 Khairy Saeed, 36
 Khamis, 97
 Khargonekar, 81
 Kibble, 87
 Kirby, 86
 Kjörling, 86
 Kleanthous, 105
 Kleen, 90, 147, 154
 Kleinrock, 86
 Klemm, 78
 Klett, 35
 Klimaschewski, 33, 34
 Koch, 92
 Kohonen, 91
 Kolar, 89
 Koltès, 36–38
 Kotelnikov, 74, 86
 Krasovski, 83
 Krieger, 81
 Krivocheev, 79
 Kundig, 33
 Kunicina, 38
 Kurpyte, 105
 Kuzle, 31

 Laermer, 77
 Laithwaite, 93
 Lajoie-Mazenc, 38
 Lambrecht, 77, 93
 Lane, 85
 Lang, 30, 35
 Lantsberg, 96, 103
 Lanz, 105

- Lapostolle, 147, 154
Larsen, 29, 34, 39
Lavenberg, 88
Law, 35–37, 92
Lawrenson, 74
Lawson, 78
Lazareck, 98
Lazarova-Molnar, 38
Lazzari, 87
Lebel, 11, 27, 39, 63, 112, 154, 158, 168, 170–178, 180–183, 185, 186
Lempel, 76
Lesic, 32, 37, 105
Levanon, 78
Levenshtein, 76
Liljerd, 86
Litsyn, 87
Litvinenko, 38
Ljung, 83
Lorente Leal, 105
Lorenz, 89
Luby, 76, 93
Lulofs, 172, 177, 179
Luque, 31, 32, 37, 38, 40
Luque Estepa, 36
Lysko, 37, 38, 97, 103
- Maazaoui, 108
Madureira, 31
Magyar, 35, 37, 38
Mahmoud, 154
Malewski, 81
Marino, 151, 154
Markovic, 38
Marquardt, 89
Martens, 104
Massey, 74, 81
Mathys, 81
Matijasevic, 38
Matogo, 37
Mattila, 38
May, 27
Mayne, 84
McAdams, 92
McArthur, 87
McFarlan, 7–9, 11, 151, 152, 154, 158, 185
McRae, 79
Meinel, 94
Memelink, 27
Meng, 98
- Messer-Yaron, 109
Mesyats, 91
Metselaar, 10
Meyer, 101
Michael, 35–38
Midwinter, 93
Mikarov, 103
Mikkawi, 97
Miller, 93
Mittendorfer, 33
Modelski, 30, 34, 40
Mokhtar, 105
Molina Gaudó, 30, 35
Molinari, 33
Monica, 35
Monti, 92
Moran, 87
Morari, 83
Moreira, 78, 81, 94
Morgan, 84
Morrow, 109
Mueller, 93
Muhindi, 96
Muriungi, 109
Musonye, 99
Mwangama, 36
Myers, 79
- Nagy, 31, 36, 89
Najjar, 100
Nakahara, 93
Nakajima, 85
Nassar, 30
Neiryneck, 100
Neumeier, 36, 105
Newberry, 34
Ney, 84
Nguyen, 81
Nikolopoulou, 38
Nizan, 182
Noordanus, 103
Nora, 35
Nowak, 81
Nygaard, 78
- Ohrvik, 28, 39
Oja, 91
Oklah, 37
Olaverri-Monreal, 100
Oliver, 168, 169, 183, 186
Ollendorff, 75

-
- Ollila, 79
 Onural, 29, 30, 39, 80, 124
 Osana, 36
 Osborne, 28, 29, 39, 96
 Oxely, 103
 Oxley, 125
 Oyedokun, 98

 Pais, 97
 Palumbo, 35
 Papadias, 33
 Papadimitriou, 37
 Papageorgiou, 94
 Papo, 29, 39, 80, 95, 124, 125
 Paris, 85
 Pasquet, 35, 36, 96
 Paton, 80
 Paun, 37
 Paunović, 30
 Paurevic, 75
 Pavlidou, 36
 Payne, 79, 90
 Peek, 34
 Peiser, 33
 Pelgrom, 88
 Pernice, 154, 177, 179, 182
 Perret, 102
 Petri, 87
 Philips, 90
 Pichkalov, 37
 Pinsker, 76
 Pintelon, 87
 Pistorio, 77, 81
 Piuri, 31, 32, 38
 Pokrajcic, 98, 105
 Polivka, 35
 Poloujadoff, 93
 Polycarpou, 91
 Ponci, 35
 Poortvliet, 27–29, 33, 39, 73, 124
 Pouloujadoff, 77
 Pourcelot, 90
 Pouzin, 87
 Povh, 85
 Prejbeanu, 102
 Proakis, 82
 Proebster, 27, 28, 33, 39, 80, 95, 124

 Raafat, 98, 105
 Rabaey, 103
 Ramm, 83

 Ramos, 100
 Ramqvist, 79
 Randell, 90
 Rannestad, 33
 Razek, 94
 Reichert, 93
 Reichl, 83
 Reimers, 85
 Reiser, 88
 Remshardt, 28–30, 34, 35, 39, 95, 97
 Remy, 27, 30, 33, 34, 40
 Richardson, 76, 88
 Richter, 18, 21, 28, 29, 33–36, 39, 100
 Riel, 84
 Rigden, 91
 Rinia, 9–12, 14, 15, 27, 33, 39, 86, 147, 148, 151, 154, 156,
 158–162, 170–172, 174, 177, 179, 181–183, 185
 Rivest, 88
 Roberts, 82
 Robertson, 83
 Robinet, 100
 Rohde, 89, 174, 177, 184
 Rokbani, 100
 Romanovs, 36–38, 103
 Rosenbrock, 83, 86
 Rudge, 76
 Ruechardt, 28, 33, 39, 124
 Ruesch, 34
 Russell, 27, 39, 90
 Ryder, 177
 Ryle, 89

 Saal, 93
 Saam, 34–36, 95, 112
 Sabih, 109
 Saduwa, 109
 Saeed, 38, 109
 Salazar Palma, 31, 34, 36, 37, 40
 Sanchez-Ponz, 34
 Sandoval, 35
 Sangster, 91
 Sansen, 92
 Saxby, 76
 Sayed, 84
 Schadt, 77
 Schmid, 31, 36
 Schmitt, 29, 30, 95
 Schoeneburg, 75
 Schouhamer Immink, 74, 85
 Schuessler, 77
-

- Schwab, 29
Schwefel, 91
Section
- Algeria, 22, 107
 - Austria, 74, 75, 80, 83, 100
 - Benelux, 7–13, 62, 64, 65, 67, 68, 74–77, 79, 80, 83, 85–88, 90–92, 94, 95, 97, 99, 100, 103, 104, 118, 122, 123, 147, 151, 153, 154, 158, 170, 172, 174, 175, 177, 179, 182, 184
 - Bosnia and Herzegovina, 18, 22, 104, 107
 - Bulgaria, 18
 - Croatia, 18, 21, 70, 72, 80, 95–98, 104, 105, 107, 109, 110, 117
 - Cyprus, 22, 68, 69, 72, 73, 91, 95, 104, 105, 107
 - Czechoslovakia, 17, 69, 106
 - Denmark, 66, 75, 82, 89, 98, 118, 171, 180, 186
 - Egypt, 7, 10, 12, 13, 62, 96–98, 103, 105, 106, 108, 109, 153, 154, 158, 170, 172, 174, 175, 177, 179, 182, 185
 - Estonia, 17, 18
 - Finland, 17, 79, 80, 91, 98, 105
 - France, 7, 8, 10, 11, 13, 62, 64, 67, 68, 71, 75–77, 79, 80, 83, 84, 86, 87, 90–96, 98, 100, 101, 103, 106, 116, 117, 121, 147, 151, 153, 154, 158, 160, 170–172, 174–177, 179, 182, 185
 - Geneva, 7, 8, 10, 11, 13, 147, 151, 153, 154, 158, 160, 169, 170, 172, 174–178, 182, 184, 185
 - Germany, 10, 11, 21, 62, 66, 69, 74, 75, 77–86, 88–95, 97, 104–106, 110, 116–119, 123, 147, 171, 174–177, 182, 184
 - Ghana, 97
 - Greece, 66, 85, 93, 94, 104, 108, 109
 - Hungary, 16, 76, 89, 103, 117
 - Iran, 104, 108
 - Israel, 7, 10, 12, 13, 66, 69, 74–76, 78, 81–83, 87–89, 94, 95, 103, 105, 109, 110, 120, 122, 153, 154, 158, 170, 172, 174, 177, 178, 182, 184, 185
 - Italy, 7, 8, 10, 11, 13, 21, 73, 75, 78, 80, 83, 84, 87, 104, 106, 107, 109, 110, 115, 116, 118, 119, 121, 122, 147, 151, 153, 154, 158, 170, 172, 174–176, 182, 184
 - Italy (Central & South), 21, 67, 69, 78, 81, 85, 184
 - Italy (North), 21, 65, 82, 85–87, 115, 184
 - Jordan, 98, 100, 105, 107–109
 - Kenya, 22, 94–96, 99, 109
 - Latvia, 17, 18, 103, 107
 - Lebanon, 72, 104–106
 - Lithuania, 17, 18, 82, 105
 - Malta, 71, 97
 - Mauritius, 22, 104, 107
 - Morocco, 72
 - Nigera, 98
 - Nigeria, 16, 22, 97, 105, 109
 - North Macedonia, 18, 21, 72, 103, 111
 - Norway, 7, 11, 78, 85, 121, 165, 166, 170–172, 174, 175, 177–180, 182, 184
 - Oman, 95, 104
 - Poland, 16, 62, 71, 78, 96, 98, 103, 104, 106, 107, 109, 119
 - Portugal, 62, 67, 71, 81, 98, 100, 109
 - Providence, 117
 - Qatar, 109
 - Romania, 18, 93, 109
 - Russia, 17, 22, 74, 76, 78, 79, 83, 86, 91, 96, 103, 106, 171
 - Russia (Northwest), 17, 22, 71, 103, 115, 116
 - Russia (Siberia), 17, 22, 106
 - Saudi Arabia, 106
 - Saudi Arabia (East), 96, 97, 101
 - Saudi Arabia (West), 22, 99
 - Serbia and Montenegro, 18, 22, 70, 73, 107, 123
 - Slovenia, 18, 21, 69, 70
 - South Africa, 16, 22, 79, 95–101, 103, 117
 - Spain, 62, 67, 70, 72, 106, 108, 115, 117, 179, 180, 186
 - Sweden, 10, 11, 62, 64, 74, 78–86, 96–98, 100, 105, 107, 109, 120, 160, 171, 177, 179, 180, 186
 - Switzerland, 21, 63–65, 74–79, 81–84, 86–93, 100, 109, 121
 - Tujnisia, 104
 - Tunisia, 62, 71, 95, 98, 100, 103, 104, 107–110
 - Tunisisa, 108
 - Turkey, 62, 68, 76, 80, 81, 96–99, 101, 105, 109
 - Uganda, 22, 108
 - UK & Rep of Ireland, 160, 170, 172, 174–178, 182, 184–186
 - UK and Ireland, 7, 11, 13, 21, 62, 65, 66, 74–76, 78–98, 101, 103–110, 115–122
 - Ukraine, 17, 80, 106–109, 119
 - United Arab Emirates, 98, 99, 103, 105, 108
 - United Arab Emirates , 106
 - United Kingdom and Ireland, 103
 - Western Saudi Arabia, 109
 - Yugoslavia, 18, 21, 68, 106, 118
- Section: Egypt, 105
Selberherr, 83
Seruga, 103, 125
Sessler, 79
Shaheen, 103
Shahrokni, 108

-
- Shalaby, 105
 Shalin, 97
 Shamai, 76, 82
 Shamir, 81, 88
 Shani, 177, 178
 Sheikh, 31, 36, 98
 Shepp, 92
 Sheremetevsky, 78
 Shima, 16
 Shokrollahi, 76, 93
 Shur, 82
 Siezen, 10, 147, 154, 158
 Sinha, 30, 36, 97, 101, 103
 Sinjou, 85
 Sinnadurai, 36, 37, 103
 Siraut, 124
 Sirjane, 12
 Skelboe, 82
 Skodras, 36
 Skvor, 34
 Sliz, 36, 98, 105
 Smith-Rose, 176
 Smotrova, 109
 Soares, 35
 Stamatis Dragoumanos, 37
 Stamoulis, 82
 Stasopoulos, 30, 31, 36–38, 40
 Stegopoulos, 33
 Stevens, 84
 Stoewer, 78
 Stoica, 81, 84
 Stoilkov, 34, 35
 Stojadinovic, 34
 Stumpers, 27, 33, 39, 86, 179
 Stupar, 105
 Subsection
 Tanzania, 97
 Sullivan, 85
 Sultan, 31, 36–38, 103
 Sussner, 75
 Svelto, 11, 158, 170, 172
 Swindlehurst, 81
 Szabo, 18, 31, 34–37, 96
 Szakal, 103

 Taktak, 38
 Tambosso, 38
 Tanenbaum, 75
 Tang, 89
 Tanter, 102

 Tarchini, 11, 147, 154, 158
 Tarjanne, 79, 86
 Tarokh, 93
 Teare, 14, 15
 Tegopoulos, 93
 Tellegen, 74
 Temple, 86
 Thiele, 82
 Thorisson, 102
 Toumazou, 82
 Tournois, 91
 Tunisia, 109
 Turner, 28–30, 33–36, 39, 80, 124
 Tyder, 175

 Ungerboeck, 76, 88
 Upton, 86
 Urban, 77
 Urbanke, 76, 88, 93

 Vallee, 103, 125
 Van Bladel, 76
 Van De Plassche, 92
 van den Brink, 77, 83
 Van Den Hove, 77
 Van der Spiegel, 100
 van der Wulp, 33
 van Duuren, 88
 van Gijssel, 124
 Van Hertem, 35
 van Nauta Lemke, 10
 Van Overstraeten, 90
 Vander Vorst, 27, 28, 33, 112, 124
 Vandewalle, 88
 Varela Iglesias, 34, 96
 Verbauwhede, 92
 Verveckken, 31, 36
 Vetterli, 77
 Vidal, 29
 Vigna, 90
 Vittoz, 92
 Voge, 33

 Waibel, 84
 Wainwright, 38
 Wallmark, 177, 179
 Watté, 33, 34
 Watteyne, 35
 Weber, 9, 13, 172, 183, 185
 Weisbarth, 75
 Wellinger, 27, 33, 39, 175, 177, 178, 182

Werner, 81
White, 91
Wiedmann, 89
Wiegand, 85
Wiesbeck, 84
Wilkes, 78
Willems, 83
Willenbrock, 185
Williams, H.P., 10, 11, 154, 158
Williams, R.C.G., 27, 33, 39, 112, 113, 154, 170–173, 177,
178, 181–183, 185
Williamson, 93
Winton, 17, 27, 28, 33, 80, 95, 124, 125, 182
Wirth, 90
Wolff, 79
Wong, 97
Woodward, 78
Wright, 81
Wutte, 100

Yakubovich, 83
Yao, 82
Yehia, 35
Young, 84
Younis, 81
Yuksel, 34

Zahoor, 98
Zajc, 37, 38
Zajc, B., 18
Zajc, B., 30, 33–35, 40
Zajc, M., 35
Zakai, 83
Zakrzewska, 81
Zamil, 38
Zanero, 35
Zeilinger, 80
Zemva, 33
Zhang, 83
Zhu, 94
Zich, 80
Zink, 81
Ziv, 74, 76
Zukauskas, 82