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# MESSAGE FROM THE NEW REGIONAL DIRECTOR



Basil W. Osborne Director Region 8 1985-86

At this time I am starting my two-year term of office to serve you as Region 8 Director, and I think it appropriate to include in this message some notes on how the IEEE is organized. I am writing primarily towards recent additions to our strength, but also to the many members of our Region who have not yet taken much part in Institute activities, and who for this reason are not getting as much out of their membership as they should.

When you send in your annual subscription you can opt to join one or more of the IEEE Societies engaged in Technical Activities (e.g. publications and meetings) in your own fields of interest. At the very favourable member's rates, this is in itself

a good reason for your membership. But it should not be the only

The Institute also has a geographical structure. Many of our quartermillion members live in countries other than the USA, in other words we belong to a trans-national Institute. Where there are more than 50 members they can opt to form their own Section (with the agreement of the Regional Director and the Regional Activities board). One of the most recently formed Sections in Region 10 is at Beijing (Peking) in China The advantages of being in a Section and supporting its activities include making good use of the IEEE funds allocated to each Section in the interests of the Section membership, as well as the opportunity to join in Section meetings. Members in neighbouring countries can choose to combine to form a stronger Section (e.g. as in Benelux and in East Africa); or there can be several Sections within a large country.

There is a close cross-linkage between Regional and Technical activities, in that a Section may form and support local 'Chapters' of some of the technical Societies. This helps to get Society support for Section meetings and conferences, and makes for a good relationship with the Society concerned. Our 24 Sections in Europe, the Middle East and Africa form Region 8, which is in its turn coordinated with the other 9 Regions by the IEEE's Regional Activities Board. Regions 1 through 6 are in different geographical areas within the USA, while Regions 7 through 10 are outside the USA.

In conclusion I want to ask you to obtain full benefit from your membership by contributing to and taking part in the activities of your Section, and by informing others of the advantages and opportunities of IEEE membership. This will give us the strength we need, and I look for your support.

BASIL W. OSBORNE Kingston-upon-Thames Surrey, England

### REPORT OF THE IMMEDIATE PAST DIRECTOR



Karsten E. Drangeid Immediate Past Director Region 8

Looking back on my two years as Region 8 Director, one of the things that has impressed me most is the willingness, the dedication and the enthusiasm of IEEE members in our Region to cooperate and contribute to our activities. I am convinced that this will continue in the future - we have formed new Sections, revitalized old ones, restructured others, and formed several sub-Sections. Members in several countries have expressed great interest in forming new Sections, indicating that this trend will continue. Our membership is continuously growing, but unfortunately the rate of growth has decreased from 12 per cent down to 5.5 per cent in 1984. I am confident that this will be improved in the future as some Sections within our

Region have already increased their growth rate considerably. With the rapid progress in science and technology, it is a challenge for electrical engineers to educate themselves and keep up-to-date, I believe that we have been able to satisfy vital needs for electrical engineers in this respect by facilitating the exchange of basic technical information between professionals, by continuous education, and by making publications of high calibre available. An indication of all these activities is the high number of Chapters formed in our Region, and the many successful conferences, most of them with a high number of participants providing evidence of the need and interest.

One of the important tasks I saw for myself as a Director of Region 8, was to stimulate the cooperation between professionals within our entire Region. Region 8 is probably the geographically largest Region, covering Europe, USSR, Africa and the near East, and with its transnational and strictly technical orientation, IEEE looks like the ideal environment to attack technical problems by such cooperation. One excellent example that demonstrated this was our first AFRICON conference in Nairobi. This conference was a big success and gave the participants a feeling for the importance and potential of this kind of activity. This was only the first conference, but we will have series in the coming years concentrating on problems important for the geographical area where they are held and of high value to the process of technology transfer. This is only one example, but the principle is the same for all our conferences and workshops.

Our cooperation with national societies is continuing and improving. An example of this is the numerous conferences organized in our Region under joint sponsorship of IEEE and national societies. Joint meetings also take place and achieve cooperation and friendly relations.

At the end of my report, I would like to express my thanks to all the people I have had the pleasure of working with on the Board of Directors, on the Regional Activities Board, in the committees, in IEEE headquarters, in the Region, and in the Sections. I assure you, all members of the Region 8, that I have enjoyed working for you during these two years. I hope to continue to serve you in the future when I will focus my interest on the future of our Region, and I am confident that you will give me your inputs on important issues and activities, and new directions, for our Region.

KARSTEN E. DRANGEID, Rueschlikon, Switzerland

## CONFERENCE CO-ORDINATION ACTIVITIES



Dr. J. Baal-Schem Region 8 Conference Coordinator

A document on policy and procedures for Region 8 conferences was adopted by the Regional Committee at its last meeting in London.

The document, prepared by the Regional Conference Co-ordinator, deals specifically with regional conferences and provides guidelines for the planning and organization of a conference as well as a detailed procedure for the approval of a conference by the Regional Committee.

According to the policy adopted by the committee the treasurer of each regional conference will be nominated by the Regional Director in association with the conference chairman and shall report directly to the Director.

A special effort will be made to draw a

large participation of students to regional conferences and each steering committee will nominate one of its members to deal with student participation.

Two agreements based on the new policy document have already been signed: one for the organization and financing of MELECON '85 to be held in Madrid on 8–10 October 1985 and one on the organization and financing of EUROCON '86 to be held in Paris on 21–23 April 1986.

It is my firm belief that one of the most important services to be provided by the Region to its members is to organize technical conferences suitable to the specific needs of the members and it seems to me that there is no better proof of the importance of these conferences than the number and distribution of their participants. Since 1980 about 3500 engineers have taken part in IEEE Region 8 conferences in which several hundreds of original papers were presented.

We have now three regional conferences: EUROCON, MELECON and AFRICON, each suited to a different geographical area of the Region and it seems to me that in coming years we should concentrate in stabilizing these conferences. At the same time we should continue to cooperate with IEEE societies, in order to establish specific professional conferences and workshops in Region 8.

Dr. JACOB BAAL-SCHEM Holon, Israel

### **CONFERENCE REPORTS**

#### IBC '84

With an all-time record of more than 10,000 participants from 58 countries the 10th International Broadcasting Convention held at the Metropole Conference and Exhibition Centre, Brighton, UK, 21–25 September 1984, was another high achievement for its organisers. UKRI Section, as co-sponsor, had an IEEE stand, where membership information was much in demand.

The well attended Technical Programme generated interesting and lively discussions. The 86 papers presented by leading world experts in 14 Sessions covered the latest developments in sound and television broadcasting and allied technologies and there was particular interest in the papers dealing with satellite broadcasting, cable television and higher definition television. The economic aspects of the continuing and rapid technological development was also a subject of serious debate stimulated in the lively Opening Session under the heading of 'Evolving Technology – Its Applications and Costs' attended by over 500 delegates. The full texts of the papers in the Technical Programme are published in the IBC '84 Convention Publication which can be purchased from the IBC Secretariat.

There was a record 144 exhibitors at the Convention with an extensive range of the latest equipment on display demonstration. Big companies from the UK, Europe, USA and Japan were there in force together with many smaller firms producing a wide range of specialised equipment. The outside exhibits of mobile broadcast and satellite equipment along the lower esplanade fronting the Metropole complex were a big attraction.

The organisers have announced that the next IBC which will be held in Brighton, 19–23 September 1986, will occupy both the Metropole Conference and Exhibition Centre and the nearby Brighton Centre were the two venues linked by the outside exhibition area along the seafront.

#### **EUROCON'84**

EUROCON '84 'Computers in communication and control', the 6th European Conference on electronics was held at the Brighton Centre on 26–28 September 1984. The proceedings have been published as PPL Conference Publication; No. 22, 424 pp; 297x210 mm; soft covers; UK £42.00, elsewhere £54.00 and may be ordered from The Institution of Electrical Engineers, P.O. Box 26, Hitchin, Herts SG5 1SA.

#### JINA '84

The third International Symposium on Antennas JINA '84 (Journées Internationales de Nice sur les Antennes) was held 13–15 November 1984 at Acropolis, the new convention center in Nice, France. Organized by CNET and SEE, this is the only conference in Europe geared to providing scientists and engineers with a worldwide forum devoted exclusively to antennas, covering all aspects from theoretical studies to actual applications and future designs.

Twelve invited papers and forty-six posters were presented in four sessions: NUMBERICAL AND ANALYTIC TECHNIQUES APPLIED TO ANTENNA DESIGN; TELECOMMUNICATIONS ANTENNAS; SCATTERING, IMAGING, AND NEAR FIELD; and MICROSTRIP AND ARRAY ANTENNAS. A technical visit to the CNET antenna laboratory at La Turbie was organized the day after the conference.

Attendance – 200 participants from 20 different countries – was higher than expected, thus demonstrating the significance of this field, especially in light of today's rapidly evolving satellite communications

systems.

Special focus was on deployable antennas; multibeam, multi-frequency, and shaped antennas; large satellite antennas for communications with mobiles; and, for the future, printed (microstrip) antennas and electronically steered arrays.

The conference proceedings are available for FF 370 (postage included), and may be ordered from: JINA '84 Secretariat, CNET-PAB, Centre de La Turbie, 06320 CAP D'AIL, France.

The next JINA Symposium will be held in November 1986, in Nice.

## **COMPUTER SOCIETY ACTIVITIES IN REGION 8**

The Computer Society and Region 8 are co-operating to increase the services which the Society provides to members in the Region. Already the Region 8 Committee has approved an outline proposal from the Society to establish a new, major, international conference on computer technology in the Region, to be known as COMPEURO and to be held at regular intervals. Professor Walter Proebster, Past Region 8 Director, accepted an invitation from the Regional Committee to work out details with Dr. Martha Sloan, Computer Society President.

As a further step towards increasing member services in Region 8 the Society set up a Task Force with Professor Herbert Weber, a member of the Computer Society Governing Board, as Chairman. When the Task Force met on 30 November it decided: to implement plans to establish

Computer Chapters in Sections with more than 100 Society members where a Chapter does not exist; to recommend to the Computer Society the establishment of Computer Technical Committees; to investigate how the Society's Distinguished Speakers Program can best be applied in Region 8; to look into a practical way of creating a Computer Society Office in Region 8.

All Computer Society activities in Region 8 will be organised to maintain a harmonious relationship with national societies. Any members who are prepared to give active assistance towards expanding Computer Society activities in the Region are asked to contact Mr. R. C. Winton, Secretary Region 8, 224 Creighton Avenue, East Finchley, London, England, N2 9BD.

## **IEEE SECRETARY**



Prof. Dr. Walter E. Proebster Secretary IEEE

Professor Walter Proebster (Germany Section) is the new Secretary of the IEEE. His appointment continues the policy of appointing the Secretary from among members outside the U.S. The first to be appointed in this way was Dick Poortvliet (Benelux Section), and the outgoing Secretary is Dr. Prasad Kodali (Delhi Section).

Professor Proebster is a former Director of Region 8, and is currently an Appointed Representative on the Region 8 Committee responsible for Membership Development. In addition, the Committee has asked him to progress with the President of the Computer Society the new major international conference in the computer

field - COMPEURO - which will be held in Region 8 at regular intervals.

# CONTINUING EDUCATION

At the Berlin Continuing Engineering Education Program there are several interesting series about electronics and information sciences; from the 20 seminars offered next year in Berlin I have chosen the following as examples:

Using UNIX and INGRES – The new programming environment (25–27 March)

March).

Managing the PC in large organizations (16–18 Oct.).

Interactive Computer Graphics (10-14 June).

Communications and distributed systems for real-time applications (15–18 April).

Electronic Mail and Telematic Services in Computer Networks (18–21 June).

Advanced Software System Design (20–24 May).

Operating Systems Design Principles (3-7 June).

As a IEEE member you can participate at these seminars for a reduced fee. In addition you can give seminars yourself if you are specialist in a certain field. In this case you can send your application to me, too.

For more information please contact: Continuing Education Office of IEEE Region 8, Prof. Dr. K. Goser, Fern Universitaet, P.O.B. 940, D-5800 Hagen 1, West Germany.

## LETTER TO THE EDITOR

Dear Sir,

One of the most basic rights of a member of any society (whether a state or a voluntary organization) is the right to vote and elect its governing body. This same rule applies to the members of the IEEE, and that's why the Institute's elections are held, year after year, on a worldwide basis, by direct ballot of all 250,000 members.

Unfortunately, the Israeli members (like myself) have been deprived this year of their privilege to vote.

The deadline for returning the ballot was Nov. 1; but the envelope with all the election papers arrived at my home address only today, Nov. 8! It does not even bear a postmark, so that it is impossible to determine the date it was sent.

I can understand that, for reasons of expediency and economy, the Institute has decided to use the services of a forwarding agency (located in the Netherlands); but still, the Institute should have made sure that this agency will fulfill its obligations properly and dispatch the ballots in a timely manner – which obviously has not been the case this year. I checked today with 6 other Israeli members and found that they either received their envelopes today or yesterday, or have not received tham at all. I must assume that this applies to most of the 640 Israeli members.

I definitely protest against this violation of my rights. There is a limit to 'economy' and 'efficiency' – especially if they infringe upon members' privileges. I realize, of course, that nothing can be done now to change this unfortunate fact – but I do hope appropriate steps will be taken in future

I'll be grateful if my letter will be published in the Newsletter, and I appreciate your assistance.

Sincerely,

Michael Snir (4161022), member, 15 Kdoshey Kahir Street, Holon 58309, Israel

Note from the Editor – Delays in receipt of IEEE communications are kept under continual review by the Region 8 committee and in view of the recent change in procedure they would welcome any evidence from other members of unreasonable delays in the receipt of time sensitive material.

# NOMINATION BY PETITION

Voting members (that is to say Honorary Members, Fellows, Senior Members and Members) in Region 8 may nominate candidates for the office of Region 8 Vice-Chairman by petition. Petition must be signed by at least one per cent of the total number of voting members in Region 8, as listed in the official membership records at the end of the preceding year, and a majority of the Sections in Region 8 must be represented by at least one per cent of the voting members.

The petition must indicate clearly the names, membership grades and membership numbers of those signing. The petition must be addressed to the Board of Directors; it must arrive at IEEE Headquarters not later than noon on the Friday preceding 1 June; and it must be accompanied by evidence that the candidate named in the petition is willing to serve if elected.

### CONFERENCE ATTENDANCE

What makes anyone go to a conference? Conference organisers just do not know, so they explain their failures and successes as 'You lose some, you win some'.

Well what does make *you* go to a conference? Does your boss take the final decision, or your training department, or do you? For what reasons is the decision taken? Is it the quality of the program? If so, how is the quality measured? Is a narrowly based conference theme in your speciality preferable to a broad theme which keeps you up-to-date with adjacent fields? Is the program less or more important than the opportunity to exchange views with others working in your field? What influence does the conference fee have on the decision? How important are the costs of travel and accommodation? Are you more likely to attend a conference associated with a major exhibition? And so on, and so on....

The Editor would welcome your views. Please write and tell him – What makes you go to a conference?

## **NEW REGION 8 FELLOWS**

The Board of Directors has elevated a group of 138 IEEE Senior Members to the Fellow grade. The Fellow grade, considered a great honour, implies unusual professional distinction. A listing of the newly named Fellows in Region 8, along with their affiliations and citations, follows:

Per Brinch-Hansen, DIKU, Copenhagen, Denmark, for contributions to concurrent programming and operating systems: Janis A. Bubenko, Royal Institute of Technology, Stockholm, Sweden, for contributions to energy systems through new concepts in power-system analysis and modelling; Andre J. Calvaer, University of Liège, Belgium, for contributions to power-system analysis, and for fostering closer relations between industry and higher education; Theo A. C. M. Classen, Philips Research Laboratories, Eindhoven, the Netherlands, for contributions to the theory of digital signal processing, in particular the analysis of nonlinear phenomena in digital filters; Francesco Iliceto, University of Rome, Italy, for contributions to the development of high-voltage ac and dc transmission systems and to engineering education; Maldwyn N. John, Kennedy and Donkin, Surrey, England, for contributions to developments of dc and ac resonant links and to high-voltage power networks; Mohamed M. Khalifa, University of Cairo, Egypt, for contributions to education and research in high-voltage engineering, corona discharges, and solid-state circuit breakers; Lennart Ljung, Linkoping Institute of Technology, Linkoping, Sweden, for contributions to recursive parameter estimation and adaptive control; Ernst H. Luder, University of Stuttgart, Institute of Network and System Theory, Stuttgart, West Germany, for contributions to the theory and design of analog and digital filters; Mohamed Mansour, Swiss Federal Institute of Technology, Zurich, Switzerland, for contributions to the theory of discrete systems and for organizing and directing an outstanding computer control laboratory; Wolfgang F. G. Mecklenbrauker, Technical University of Vienna, Austria, for contributions to the theory of digital signal processing and digital filtering; Bernard Picinbono, Laboratoire des Signaux et Systèmes, Moulon, France, for contributions to signal processing, adaptive detection, and stochastic processes; Antonio Ruberti, University of Rome, for contributions to nonlinear geometric theory and its applications: Erich Spitz, Thomson-Brandt, Orsay, France, for leadership and management of optoelectronics research; Ryszard Struzak, Institute of Telecommunications, Wroclaw, Poland, for contributions to electromagnetic-compatibility instrumentation and to frequency management; Gottfried Ungerboeck, IBM Corp., Zurich, Switzerland, for contributions to the theory and practice of digital communications.

# CAMPBELL SWINTON COMMEMORATION



A. A. Campbell Swinton MICE, MIEE President of the Röntgen Society 1911–1912

Seventy-three years after he forecast electronic television by means of cathode rays, Alan Campbell Swinton, Fellow of the Royal Society, has been honoured at his birthplace in Edinburgh, Scotland.

Professor A. M. Rosie of the Electrical Engineering Department at the University of Strathclyde, Glasgow, Scotland, represented the IEEE at a ceremony on 18 October, when a commemorative plaque was unveiled at 9 Albyn Place, where Campbell Swinton was born in 1863.

Although John Logie Baird is widely regarded as the pioneer of television, the real father of television is Campbell Swinton. It was Campbell Swinton who first suggested, in a paper read to the Röntgen Society of London in 1911, an all-electronic television system by means

of cathode rays in both camera and receiver. He presented it as 'an idea only', his brilliant concept being too advanced for application at the time. However, it was not Baird's electronic-mechanical television system, but Campbell Swinton's all-electronic system which was developed in Britain in the 1930's by Schoenberg and his team at EMI, which became the basis for today's television systems throughout the world.

Campbell Swinton had many interests besides what he termed 'distant electric vision'; among these interests were X-ray photography and cathode ray bombardment. Another of his achievements was his introduction of Marconi to the British Post Office, from which came the vital support which Marconi received from Sir William Preece, then Engineer-in-Chief at the Post Office.

### **NEWS OF THE SECTIONS**

### GERMANY SECTION (Chairman: Prof. Dr.-Ing. Rudolf Saal)

On 9 October 1984 the votes for the election of the Executive Committee of the German Section IEEE for the term 1985/87 were counted in Frankfurt. The percentage of voting was 45.14 per cent and the results were:

Chairman: Professor Dr.-Ing. Rudolf Saal (re-election). Vice-Chairman: Dr. rer.nat. Hugo Ruechardt (re-election). Treasurer: Dr. techn. Johannes Berghammer (re-election).

Dr.-Ing. Friedrich Coërs remains Secretary of the German Section IEEE. According to §5 of the Section Bylaws the other officers (Membership Development Coordinator, Student Activities Coordinator, Conference Officer, Publications Officer and two Assessors) shall be designated by the elected members of the Executive Committee.

### POLAND SECTION (Chairman: Prof. W. J. Seruga)

We regret having to give the sad news that Prof. Janusz Groszkowski, Life Fellow and eminent scientist, died last year at the age of 86. Prof. Groszkowski was a Retired Professor of Warsaw Technical University, and Past President of the Polish Academy of Science. During the occupation of World War II and while working in the underground, he helped to deciper the electric system of the German rocket V2.

#### SWITZERLAND SECTION (Chairman: Prof. J Neirvnck)

The Chapter on Electromagnetism and Microwaves held two half-day meetings.

On 15th May 1984 in Bern (Swiss PTT Technical Centre), Workshop on 'Measurement Techniques in Microwaves and Electromagnetism' at which there was an attendance of 46. Some of the presentations will be covered in articles appearing in the Bulletin of the Swiss Electrotechnical Association.

On 8th October 1984 in Zurich (ETH), Fall Meeting with Distinguished Lecturers, with an attendance of 38.

In addition, a lecture was presented on 5th October 1984 at Ecole Polytechnique Federale de Lausanne: Dr. Y. Rahmat-Samii (J.P.L., Caltech Pasadena CA, USA): Antenna far-fields from near field measurements – a novel plane polar technique.

The Chapter plans to hold again a one-half day spring meeting (workshop) in 1985, in which emphasis would be put on industrial developments. It must be noted that with one exception, the presentations at the 1984 Spring Meeting all came from scientific laboratories.

# **NEWSLETTER CHANGES**

This issue of the Newsletter has been prepared without the assistance of the Editor, Bill Devenish, and of the Assistant Production Editor Gretta Gouriet. Both have been prevented for personal reasons from continuing, but as you see this issue has appeared on time, and arrangements have been made for the Newsletter to continue to appear as usual

Bill Devenish is the Founder Editor of the Newsletter, having occupied this position for the past 17 years. He deserves the thanks of past and present members for having worked on the Newsletter through its various stages of development since 1967, when the Newsletter was first created by Robert Williams, who was then Region 8 Director; he is now the Newsletter Production Editor.

Gretta Gouriet has worked on the Newsletter since 1982. She was especially concerned with writing news items, and with the Newsletter 'paste-up'. In addition she did much to interest members in supplying items for the Newsletter, a task in which, in spite of much effort, she was not as successful as she would have wished.

So the final message to the members from Bill Devenish and Gretta Gouriet is, 'Do please put more news into the Newsletter'. And the final message from members to them is surely, 'Sincere thanks for all you have done to maintain a service which keeps all of us in touch with Region 8'.

# ADVERTISING AND INSERTS IN THE IEEE REGION 8 NEWSLETTER

The Institute of Electrical and Electronics Engineers (IEEE) Region 8 NEWSLETTER provides an inexpensive medium for direct-mailing inserts and for placing advertisements about your conferences, courses, exhibitions, books and publications.

You can reach a select mailing list of 16,000 English-speaking electronics, computer, and electrical engineers in 78 countries at a rate of US \$0.11 each for a full-page advertisement or insert – much less than the cost of a direct-mail shot.

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