

# IEEE Region 8 newsletter



*M J S*

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
INCORPORATED

Editor: Mr W.H. Devenish, The Electrical Research Association Ltd.,  
Cleeve Road, Leatherhead, Surrey, England KT22 7SA.  
Tel. Leatherhead 74151

Telex 264045

Regional Director: Mr. C. Reginald Russell

No. 27

JULY 1974



C. Reginald Russell  
Director Region 8

## COMMITTEE MEETING IN AMSTERDAM

A meeting of the Region 8 Committee was held in Amsterdam on the 26 and 27 April, 1974, following the closing session of Eurocon. President Guarrera, supported by several members of the Board of Directors, was present together with the Chairmen and representatives of the eighteen sections of the Region.

### Groups and Chapters

Region 8 is unique among the Regions of the Institute in that a very high proportion of its membership are members of the various Groups and Societies and Vice President Cotellessa,

Chairman of the Technical Activities Board, took the opportunity to point out the advantages of forming technical Chapters throughout the Region. These Chapters are groupings of members with common technical interests who arrange meetings and conferences from time to time in their specialised area. It has been found useful in certain Sections to set up such a Chapter where, for instance, the national society does not specifically cover the area. It is possible for a Chapter to cover more than one country. If you feel that a Chapter would be useful for your interests, please write to your Section Chairman whose address was listed in the last issue of the Newsletter.

### Fellows

There was a statement on the election to the grade of Fellow of last year—members will recall that this is the highest of the Institute grades and can only be entered by nomination and election. The rule is that one half of one percent of Senior Members—approximately 120—can be elected to Fellow in each year. This is a very distinctive honour, bearing in mind that the Institute has 170,000 members. If you know anyone of unusual distinction whom you would like to propose, please again contact your Section Chairman.

### Publications

Members may like to know that an investigation is under way to assess the costs for the most cost effective method of shipping Spectrum and possibly other publications by air to a main European centre from which onward distribution would then take place. A special working party is trying to arrange a really competitive trans-atlantic freight rate. There will be a further report on this in due course but it may be that members will be asked to pay something towards these costs should they wish for a more rapid receipt of publications.

PUBLISHED QUARTERLY		JAN.	APRIL	JULY	OCTOBER
DEADLINES	News to Editor	Dec. 7	Mar. 7	June 7	Sept. 7
	Advertisements to Sweatman & Fordham	Dec. 15	Mar. 15	June 15	Sept. 15
	Delivery inserts to County Secretarial Services	Jan. 1	Apr. 1	July 1	Oct. 1

### Student Activities

Student activities continue to develop. Professor F. Bolinder of Chalmers University of Technology in Gothenburg, Sweden, has accepted the Chairmanship of the Student Activities Committee for the remainder of 1974. Enquiries regarding possible new student branches should be addressed either to him, to your Section Chairman, or to your local student representative.

### Finance

Regarding payment of dues, members of Sections now have the facility—where their currencies are readily transferable—to pay them in local currency through banking arrangements made by New York. In this event, the dollar value of the dues plus any Group and Society subscriptions which are appropriate should be changed into the local currency rates as quoted in the newspapers at that time, plus an extra 50c for handling charge and should then be forwarded through the designated local bank. Where these facilities exist, they do much to simplify the payment procedures but it will be appreciated that such arrangements can only be made where permitted by your local exchange control.

### Regional Director Election

The Regional Committee received three names for the November election of the Regional Director all of which were approved. These names will be on the ballot form submitted to members with the autumn dues bill. The candidates are;

- |                          |  |
|--------------------------|--|
| Professor F. Bolinder    | Sweden Section<br>Chalmers University of Technology<br>Gothenburg. |
| Professor G. Francini    | Middle and South Italy Section<br>University of Florence           |
| Professor F. L. Stumpers | Philips Research Laboratories<br>Eindhoven<br>Benelux Section.     |

The By-Laws provide that individual voting members may propose names for the ballot for the Regional Director, to be made by letter to the Board of Directors. These names must be received at IEEE Headquarters by noon on Friday 26th July, 1974. The petition must be signed by at least two percent of the total eligible voting members in the Region as at the end of 1973, (97 in the case of Region 8) provided that a majority of the Sections in the Region shall each be represented on the petition by at least two per cent of their voting members.

### Transnational Speaker Tours

The speaker tours programme is going well and approximately two dozen names have been circulated to Section Chairmen of distinguished speakers coming over to the Region from the United States, who are willing to give presentations on their specialised technical fields. Members are reminded that the speakers tour programme is a two way arrangement and if they are planning to travel outside their Section borders and are willing to offer a presentation, they should contact the Region 8 Educational Activities Board Chairman, Mr. J. G. Remy at the Ecole Nationale de Télécommunications, 46 Rue Barrault, 75634 Paris, Cedex 13. Funds exist to cover partial expenses in selected cases; for instance in the diversion from an itinerary.

C. REGINALD RUSSELL

## EUROCON 74



The reception of Prince Claus of the Netherlands at the RAI Conference Centre in Amsterdam prior to the official opening of Eurocon '74.

With him are (left to right): Burgomaster Samkalden of Amsterdam; Professor Gundlach of Germany (member of the Communications sub-committee); Professor Stumpers of the Netherlands (Chairman of the Technical Program Committee); IEEE Vice-President Stern of the USA; Prince Claus; Mr. van den Broeke of the Netherlands (Chairman of the Steering Committee); Director Russell of England (IEEE) and Mr. Don Christiansen of the USA (Editor IEEE Spectrum).

The second Eurocon Conference—EUROCON '74—was successfully held in the RAI Conference Centre, Amsterdam, from April 22-26, 1974. As members will know, this was organized in partnership between the Region and the Convention of Electrical Engineering Societies of Western Europe. A total of 290 papers were presented and 770 participants were present—a truly international gathering. The meeting was opened by Prince Claus of the Netherlands who, in a speech, expressed his personal interest in technology. The keynote address "Technology for the Future" was given by Professor H. B. G. Casimir of the Netherlands in a presentation remarkable for its lucidity, comprehensiveness and humour.

The Conference covered six main themes:

Controlling the Future; Instrumentation Electronics; Communication for the 1980's; The Computer in Society; Biomedical Engineering; Education.

Discussion was, in general, good although as usual, some papers tended to over run their stated length, thereby eating into the discussion time. An evening panel on education "Is our engineering adequate for the future?" was well attended, as is illustrated by the fact that it continued to 10.30 p.m.

The Conference had the distinction of forming part of the news broadcast on Dutch Television on the opening evening. Questions were asked about the scope of the Conference and in particular, the public concern in relation to the possible intrusion of computers into people's lives.

The success of the Conference has led to the decision to hold another in 2-2½ years time and details will be given as soon as possible.

## INSTITUTE NEWS

### Nominations

Mr. Arthur P. Stern, Vice President and General Manager, The Magnavox Company, California, has been nominated for the Presidency. He joined Magnavox in 1966 and has directed advanced communications, control and information technology, and systems activities. A member of IEEE's Board of Directors for three years, Mr. Stern is currently Vice President—Regional Activities.

Mr. Joseph K. Dillard, Westinghouse Electric Corporation, East Pittsburgh, has been nominated for the position of Vice President. He began his engineering practice as a member of the Electrical Engineering Department of M.I.T. Joining Westinghouse in 1950, he became a Manager six years later. Mr. Dillard is responsible for the engineering relationship of Westinghouse with electric power companies all over the world. Currently the Institute's Treasurer, he has also served on the IEEE Board of Directors as Vice President—Technical Activities.

The nominees for Regional Directors/Regional Delegates for 1975-1976 included those for Region 8.

### Prize Paper Awards

The W. R. G. Baker and Browder J. Thompson Awards were presented during INTERCON in New York City in March. The Thompson Award, of a certificate and \$1000, went to Jørn Justesen for his paper "A Class of Constructive Asymptotically Good Algebraic Codes". Mr. Justesen received his M.S. in electrical engineering from the Technical University of Copenhagen. Last year he was a lecturer at the University of California, Berkeley. Currently he is employed by the Laboratory for Communication Theory, Technical University of Denmark, Lyngby.

### Intercon and Nerem

IEEE INTERCON and NEREM will merge to form a major new eastern seaboard conference, effective in the spring of 1976. Conferences already planned (NEREM '74 and IEEE INTERCON '74, '75) will still be held. The new conference will be managed by Electrical and Electronics Exhibitions, Inc. (EEEI), the organization which currently manages IEEE INTERCON and WESCON. Dates for the first joint conference will be May 11-14 1976 in Boston. The conference will alternate, thereafter, between New York and Boston.

### Popov Society Congress in Moscow.

President John Guarrera headed a thirteen member Institute delegation to the annual A. S. Popov Society Congress in Moscow (May 6-8 1974). The sessions were primarily concerned with radio communication. One of the members of the delegation was Mr. C. Reginald Russell (Director, Region 8). The delegation arrived in Moscow on May 5 and stayed for 11 days. In addition to the

Congress, they visited scientific institutes and laboratories in the cities of Leningrad, Novosibirsk and Kiev. The exchange program between the IEEE and the Popov Society has been in existence for a number of years. Members of the Soviet delegation were guests at the recent IEEE INTERCON in New York.

### IEEE Press

The publication of **Key Papers in the Development of Information Theory**, a volume of selected reprints, has been announced by the IEEE Press. This collection was edited by David Slepian of Bell Telephone Laboratories and the University of Hawaii.

In the quarter century since the appearance of Shannon's profoundly significant work on the theory of communication, his ideas and theorems have been elaborated upon, complemented, and extended by engineers and mathematicians throughout the world. The 48 papers (12 by Shannon) reprinted in this book cover the key developments in the field. The major topics considered are the classical source and channel, rate distortion theory, and many-terminal channels.

This 472-page book, sponsored by the IEEE Information Theory Group, is priced at \$7.50 for the paper-bound member edition. A cloth-bound edition is available for \$11.20.

### Transnational Lecture Tours

Dr. Ronald L. McFarlan, 68 Pond Street, Belmont, Mass. 02178, USA, will be in the areas of several Sections—especially England and France—in the late fall of 74 or the early spring of 75. The series of lectures, which Dr. McFarlan has already given to several Sections in Canada and Latin America in conjunction with Mr. H. R. Oldfield, deal with computer-based medical information systems and provide an overview of the characteristics of management information systems and describe the specific nature of such systems as applied to the Health Care Process. The lectures are entirely technical in nature but need to be organized in collaboration with local medical societies and organizations such as those concerned with health care. Consequently, the Director of Region 8 and Dr. McFarlan should be consulted before any other steps are taken.

Mr. Paul N. Hanover of Hughes Aircraft Co. Bldg 2, Tucson, Arizona 85715, USA (home address: 3551 Winslow Dr., Tucson, Arizona 85715) lectures on "Mission to Mars"—Story of the Viking Spacecraft on the Red Planet. Arrival: September 14 1974—London, England. Departure: October 18 1974—Paris, France. He is available: Sept. 14—London; Sept. 20—Paris; Sept. 23—Munich; Sept. 29—Vienna; Oct. 2—Venice; Oct. 5—Florence; Oct. 8—Rome; Oct. 12—Zurich; Oct. 16-18—Paris.

## MEETINGS IN REGION 8

### International Conference on Electrical Machines

An International Conference on Electrical Machines is to be held at The City University, London, from September 2-6 1974.

In response to invitations from an international committee, under the chairmanship of Professor A. J. Ellison some seventy papers are to be presented. Conference sessions have been arranged under the following subject headings: machines having superconducting windings; acoustic noise; machine parameters; motor control; direct current machines and commutation; synchronous machine/system models; design studies.

Further information may be obtained from The Conference Secretary, Room E521, International Conference on Electrical Machines, The City University, St. John Street, London, EC1V 4PB.

### European Microwave Conference

This 4th European Microwave Conference presents in Montreux 10-13 September 1974, a number of innovations and may well mark a turning point for the Microwave Community, as it covers the areas of three different previous Conferences: Research and Development (previous Eu.M.C.'s), Hardware and Systems (Microwave '73) and Microwave and Optical Generation and Amplification (M.O.G.A.). A particular effort has been made to ensure a balance between these different fields of endeavour.

The program consists of 18 contributed sessions. The subject of active solid state devices retains its prominence with five sessions. Another significant feature of the program are 4 sessions devoted to communications systems and related components, emphasizing the considerable activity in this area. The other sessions follow the conventional pattern of previous European Microwave Conferences. Nine invited surveys, presented by specialists of international standing are of wide general current interest and are planned to bring up to date microwave engineers not directly involved in these particular areas.

The exhibition Microwave '74 will be located in the same building. An effort has been made to render the conference schedule not too heavy, to enable participants to meet informally and visit the exhibition.

Further information from Prof. Fred E. Gardiol, Conference Chairman, Chemin de Bellerive 16, CH-1007 Lausanne, Switzerland.

### Optical Fibre Communication

Organized by the Institution of Electrical Engineers, in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institute of Electrical Engineers of Japan, the Institute of Physics, the Institution of Electronic and Radio Engineers, Société des Electriciens, des Electroniciens et des Radioélectriciens (France) and some other European bodies (to be announced).

The conference will be held in London, 16-19 September 1975, and will provide an international forum for the interchange of information on the progress of research and development in optical fibre communication by those in Europe, USA and elsewhere who are actively engaged in this field.

The topics to be covered will include: Transmission, Fibre Technology, Optical Fibre Cables, Sending and Receiving Devices, Repeater Design, and System Design.

Those intending to offer contributions should give the title of the contribution they wish to offer to IEE Conference Department, Savoy Place, London, WC2R OBL, where further details may be obtained.

### Electrical Methods of Machining, Forming and Coating

Organized by the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institute of Metal Finishing, the Institute of Physics, the Institution of Mechanical Engineers, the Institution of Production Engineers, the Machine Tool Industry Research Association and the Society for Electrochemistry. The Conference, the third in a series, will be held in London 18-20 November 1975 and will be concerned with machining, cutting, welding, surface treatment and coating of materials utilizing the following techniques: Particle beam techniques (electrons, ions,

etc.); Laser beam techniques; Electrical discharge machining (spark erosion); Electro-chemical machining and forming; Electro-magnetic/electro-hydraulic forming; and Electro-phoresis/electro-static coating.

It is intended that the conference will have a strong practical bias. To this end, papers reviewing application, current practice, process limitations, economic comparisons with conventional methods and potential development are sought from users, suppliers of equipment and research organizations working in the fields of the various techniques.

Those intending to offer a contribution should submit a 250 word synopsis to the IEE Conference Department by 28 October 1974. From these submissions, a selection will be made and the authors will be invited to develop the material to a full contribution for submission by 23 June 1975. Further particulars from IEE Conference Department, Savoy Place, London WC2R OBL.

### Electrical Safety in Hazardous Environments

Organized by the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institute of Petroleum and the Institute of Physics.

The conference is the second in a series, will be held in London 9-11 December 1975 and will review the current position and highlight the many developments since the last Conference in the area of safety of electrical equipment installed in areas where there is a potential hazard due to explosive mixture of gases/vapour/mist or dust.

It is proposed that the development of the various techniques available to achieve safety in the mining, oil, petrochemical and other industries, on and off-shore, shall be examined in relation to particular applications together with modern and future practices.

The field to be covered includes power systems, control, instrumentation, communication and electro-statics under the following main headings: Philosophy of risk assessment; Statutory requirements; Research and testing; Standards; Apparatus, design and construction including new materials; The need for certification?; Codes of practice; Installation of apparatus and systems; Safety procedure (including issue of gas-free certificates); Maintenance; Environmental suitability (corrosion, etc.). It is intended to cover dust hazards but not explosives.

The Organizing Committee invite offers of contributions of approximately 5 A4 pages (294 x 210 mm.) which allows for 2,500 words of text, or less if illustrations are included, for consideration for inclusion in the Conference Programme. Those intending to offer a contribution should submit a synopsis (approximately 250 words) to the Conference Department of the IEE, Savoy Place, London, WC2R, by 7 October 1974. Full typescripts will be required for assessment by 16 July 1975.

### International Conference on Energy from Refuse

The First International Refuse-to-Energy Conference will be held in Montreux, Switzerland, November 3-5 1975 under the joint sponsorship of the World Environment and Resources Council, the Institute of Electrical and Electronics Engineers (IEEE), American Society of Mechanical Engineers (ASME) and the United States Environment and Resources Council with additional participation from other educational, scientific and environmental organizations. The conference will emphasize practical applications, technical progress and socio-environmental aspects of refuse-energy conversion. Sessions will cover such subjects as system design, conversion economics, materials recovery, environmental aspects and community impact. Plans also provide for a small exhibit area. The conference chairman is Professor Dr. Nikolas Kirov, head of the Department of Fuel Technology, University of New South Wales, Sydney, Australia, a recognized authority on refuse-energy and incineration. The program is headed by Professor Dr. Fritz Widmer, Head of the Institute for Processing Technology, at the Swiss Federal Institute of Technology (ETH), Zurich, Switzerland. Conference Patron is Professor Dr. Dr. h. c. Peter Grassman, also of ETH. For more information, contact Prof. Fritz Widmer, Federal Institute of Technology, Sonneggstrasse 3, CH-8006, Zurich, Switzerland.

## NEWS OF THE SECTIONS

### Finland Section

Finland Section was established in a general meeting on 9 September 1973 at which 21 members were present. A meeting of the Executive Committee appointed the Nominations Committee and organized the

activity of the Section.

A General meeting of the Section co-sponsored by EIS was held on 24 January 1974. Asst. Prof. K. Kalliomäki gave a lecture on "Laboratory of measuring norms and calibration." There were 11

members present.

A Technical meeting was held on 14 March 1974, when a panel discussion on "The difficulties met in introducing atomic energy" took place with six specialists as speakers and with 24 present. "The day of electricity" on 22 March 1974 was co-sponsored by several other societies. A total of eight papers were given on the subject: "Electricity in traffic".

Present Officers: Chairman—M. Tiuri; Vice Chairman—U. Luoto; Secretary—I. Hartimo; Treasurer—Ch. Nykopp.

Active membership of the Finland Section: Members—64; Student members—32.

#### Greece Section

During the period October 1973—March 1974 four meetings were held during which the following lectures were delivered.

Mr. N. Kontos, Director of the Center of Computers of "DEMOKRITOS", gave a lecture on: Artificial Intelligence, followed by a slide projection. The lecture was very impressive and due to the interest in the subject Mr. Kontos continued the same lecture on another date developing the subject and answering various questions from the audience. Both lectures were attended by 30 persons.

Prof. Raj Mitra of Illinois University, gave a lecture on "Methods of analysis of integrated microwave circuits" followed by a slide projection before an audience of 40 persons.

Mr. G. Gecos gave a lecture on "Optoelectronics, elements and applications in systems" followed by a slide projection presentation. The lecture was attended by 50 persons.

#### Poland Section

The list of names and addresses of the Poland Section Officers elected for the period from March 16 1973 to June 30 1975 are—Chairman: Prof. Adam K. Smoliński, ul. Polna 54-48, 00-644 Warszawa; Vice Chairman: Dr. Stanislaw Grzybowski, Osiedle Przyjaźni 5A-6, 61-683 Poznań; Secretary/Treasurer: Dr. Zbigniew H. Czyn, ul. Białowieska 19-35, 04-063 Warszawa.

The following Committee Chairmen have been appointed to serve from March 16 1973 to June 30 1975—

Membership and Transfer Committee Chairman: Prof. Konrad R. Fiałkowski, ul. Gwardzistów 10A-10, 00-422, Warszawa; Section Publications Committee Chairman: Dr. Krzysztof Badźmirowski, ul. Wiejska 9-27, 00-479 Warszawa.

## STUDENT ACTIVITY NEWS

The Seventh Student Paper Contest was held in Amsterdam on April 26 1974, within the framework of EUROCON 74. The jury was composed of Prof. Jaspers (Universite de Louvain, Belgium), Prof. O. W. Memelink and Prof. Muller (Twente University of Technology, Netherlands), Mr. J. G. Remy (Ecole Nationale Supérieure des Télécommunications France) and Mr. R. Winton (Mullard, United Kingdom).

The first prize was won by the paper "Joncteur de conférence par voies téléphoniques", presented by P. Gravez with M. Minck as co-author (Ecole Supérieure d'Ingénieurs en Electrotechnique et Electronique, Paris, France). It is awarded \$200 by the Life Member Fund of the Institute as well as \$250 by Region 8 Student Activities funds to subsidize a trip with a scientific and technical purpose to the USA.

The second prize ( \$100 from the Life Member Fund) was won by A. Sewerinsson for the paper "An active group delay equalizer for the intermediate frequency range" (Chalmers University of Technology, Gothenburg, Sweden).

The third prize ( \$50 from the Life Member Fund) was won by E. Jonckere for the paper "On the stochastic optimal control of a discrete-time linear system with a finite set of allowable actions" (Université Catholique de Louvain, Louvain-la-Neuve, Belgium).

A Student Counsellor meeting was held at the same place. It offered

to a selected group of Counsellors the opportunity to discuss student activities in Region 8 and to talk with the student contestants and with the Section Chairman on how to develop activities and contacts within the Region. It was reported that since the last S.A.C. meeting held in Belgium at the end of 1972, new branches had been formed at the Hogere Technische School voor Radiotechniek en Elektronika (Haarlem, Netherlands), Ecole Nationale Supérieure des Télécommunications (Paris, France), Tel Aviv University and Israel Institute of Technology (Israel). There are now also Counsellors at the Institut Supérieur d'Electronique du Nord (Lille, France), University of Patras (Patrai, Greece), University of the Negev (Beer-Sheva, Israel) and Linköping University (Sweden).

It should be noticed that the **next student paper contest** will be held in the spring of 1975. It is the responsibility of each Branch to select one paper at the local level in 1974. The selected authors have to write a paper complying with the contest rules (less than 25 pages of text and 10 pages of figures).

The term of office of the S.A.C. Chairman, Professor A. Vander Vorst, has come to an end and the Regional Director has appointed Prof. E. F. Bolinder, Chalmers University of Technology, Division Network Theory, Fack S—40220, Gothenburg, Sweden, until the end of 1974. Prof. Bolinder was the S.A.C. Chairman in 1970 and 1971.

### ADVERTISING RATES

Display £130 per full page  
£70 per  $\frac{1}{2}$  page  
£40 per  $\frac{1}{4}$  page

Special Section for Appointments/Professional Services/  
Publications—£30 per  $\frac{1}{4}$  page to include setting

Inserts supplied by advertiser—charges based on page rate

For further information contact the Advertising  
Representatives:

Sweatman & Fordham, Byron House  
7 St. James' Street, London SW1, England  
(Telephone 01-930 3637. Telex 262821)

### CONFERENCE INSERTS MAILED WITH THE NEWSLETTER

Service available for professional meetings contributing  
to the IEEE learned society programme.

For full Region 8 coverage copies required 7,000  
Insertion and mailing charge (lower for Section coverage  
and collation charge if more than 1 insert).

Weight < 21 g (  $\frac{3}{4}$  oz.) \$330 At present postal rates  
Weight < 50 g (1  $\frac{3}{4}$  oz.) \$405

Size A5 max or folded to A5 (148 mm x 210 mm)

Enquiries to County Secretarial Services  
P.O. Box 7, Guildford, Surrey, England GU2 5HH  
Telephone Guildford (0483) 77777. Cable address  
Cosec Guildford. Delivery address for inserts 8 The  
Flower Walk, Guildford, Surrey GU2 5HH.