



Editor: W. H. Devenish, The Electrical Research Association,
Cleeve Road, Leatherhead, Surrey, England.
(Telephone Leatherhead 4151 : Telex 264045)

Regional Director : Professor P. G. A. Jespers,
Louvain University, Electronics Labs., 94 Kar. Mercierlaan, 3030 Heverlee, Belgium.

No. 14 March 1971

IEEE Region 8 newsletter



Professor Paul G. A.
Jespers,
Director, Region 8

NEW DIRECTOR OF REGION 8

As a result of the election held last Autumn, Professor Paul G. A. Jespers was elected Director of Region 8. Since taking office on 1 January he has been very deeply involved in the detailed activities of the Region and at the time of going to press is in New York on its business. On his invitation, Mr. C. R. Russell has agreed to undertake a further term of duty as Secretary/Treasurer.



Mr. C. R. Russell,
Secretary/Treasurer,
Region 8

EUROCON 71

The meeting for Professional Growth

Lausanne, Switzerland 18-22 October, 1971

The date for EUROCON 71, the Convention intended as the rendezvous for experts in different fields of electrical and electronic engineering is approaching rapidly. Progress has been achieved in various fields of activities towards our aim 'to provide an opportunity, to establish a Convention where several areas are covered in depth and width and where engineers and scientists can exchange views with experts in other areas' (r. R. Wellinger, Junior Past-Director, Region 8, 'IEEE Region 8 Newsletter', No. 12, September 1970). Let us hope that our goal will be reached.

The main areas covered by the Convention—
Information Processing in Large Systems F. L. Stumpers
Long-Distance Communication H. Wusteney
Solid-State Circuits F. van de Wiele
Distribution of Electrical Power G. Catenacci
Biomedical Engineering Ch. D. Ray
Electronic Time Keeping R. P. Wellinger
Computer Applications and Control
Standardisation
Educational Programmes for Students and Engineers

have created great interest among universities and industry.

Already about 20 authors have agreed to give survey and invited papers and negotiations for 20 further papers are in progress. Several authors have agreed to give formal courses, lectures and student lectures. 'Computer Applications' (E. Paris) and 'Automatic Control' (K. J. Astrom) will emphasise applications in the above areas. At the time of writing, the response to the call for papers indicates many valuable contributions from Switzerland, Europe and overseas.

As a special feature of EUROCON 71, the survey papers and the tutorial papers will be arranged so as to form a conference within a conference. This will enable specialists and managers to get a valuable insight into areas not their own.

Special lectures and a reduced registration fee for students give the opportunity to get into contact with different fields of electrical and electronic engineering, with competent people and fascinating problems.

An Honorary Committee—under the Chairmanship of R. Richard, President of the Swiss Electrotechnical Association, and formed by Presidents or delegates of European national associations and institutions supporting EUROCON—will soon be established. The members of these supporting societies will enjoy the same privileges at the Convention as members of IEEE.

A complete list of supporting societies and an advance programme will be published in the next issue of the Region 8 Newsletter.

The following paragraphs provide the reader with some information about Lausanne.

Lausanne—A Tourism and Convention Centre

Lausanne is a Swiss city with a well-earned reputation as the site of major conventions and international meetings. It is situated in the very heart of Europe. It has excellent rail communications with most major European centres by fast trains and Trans-Europe Express trains. Communications between Geneva and Lausanne are also excellent; 34 minutes by rail, or 30 minutes by the new motorway; the Geneva Cointrin International Airport is thus very convenient for travellers going to Lausanne.

Lausanne, the Convention Centre

The Palais de Beaulieu, one of Europe's most modern convention centres, has excellent facilities. Around attractive gardens and fountains rise multiform and multifunctional buildings, large and small halls, a theatre seating 1,900, restaurants, lounges and bars, exhibition halls, administrative and technical facilities. EUROCON 71 will be held at the Palais de Beaulieu from 18 to 22 October 1971.

Participants to EUROCON 71 who would like to make the most of their stay in Switzerland can obtain more detailed information on Eurocon 71 and Lausanne by writing to the General Secretariat of EUROCON 71, 24 Chemin de Bellerive, CH-1007 Lausanne, Switzerland (Telex 24 478 EPFVD-CH).

INSTITUTE NEWS

Presentation of Two Field Awards

The MORRIS E. LEEDS AWARD for outstanding contribution in the field of electrical measurement will go to Martin E. Packard for his 'pioneering research leading to the practical use of nuclear magnetic resonance for the accurate measurement of magnetic fields, and for his contribution to the spectrometry of complex molecules.' Dr. Packard is Corporate Vice-President, Varian Associates.



Professor F. Ollendorf, who was selected to be the recipient of the 1971 High Education award.

The MORRIS N. LIEBMANN MEMORIAL PRIZE AWARD, making an important contribution to radio and allied arts recognised during preceding three calendar years, has been won by Martin Ryle for his 'contributions in applying aperture synthesis to extend capabilities of radio telescopes, thereby increasing man's knowledge of the Universe.' Sir Martin Ryle, FRS, is Professor of Radio Astronomy in the University of Cambridge, England.

IEEE and NSPE Agreement on Membership and Services

In an action that leaders of the two organisations hailed as a most significant step toward co-operation within the engineering profession in decades, members of the IEEE will now be able to avail themselves of certain services and publications offered by the National Society of Professional Engineers.

Dr. J. H. Mulligan, Jr., President of the IEEE, stated, 'The leadership is well aware of the increasing interest of many of its members in matters of economic, social and political involvement. IEEE has traditionally limited its activities to the dissemination of technical information concerning electrical and electronic technology. In contrast, the NSPE has limited its activities to the non-technical area and has developed programmes and accumulated expertise in many areas in which IEEE members are presently expressing concern. In addition, NSPE appears to have the particular form of organisation needed to be effective in these areas.'

The alternatives now open to IEEE members are—Subscription to NSPE Services, available at a fee of \$15 per year, these services include: eligibility for the Professional Engineer Employment Referral Service (PEERS); eligibility for the NSPE retirement programme; receipt of 'Legislative Bulletin', Legislative Action Report, Legislative Opinion Request and one practice section Newsletter (except PEPP Newsletter); participation in the NSPE Salary Survey; subscription to the 'Professional Engineer' magazine; and member-rate on all NSPE publications (see following list for additional details on these services). In addition, membership in NSPE is available to IEEE members, subject to eligibility provisions of NSPE, which relate the grade of membership available to the specific professional qualifications of the individual engineer. Such membership may be had at fees ranging from \$35 to \$75, depending on state and chapter in which member functions. As a member he would receive all services of the national, state and local societies and have voting privileges. Membership would enable participation in all activities of the local, state and national societies in such matters as improving the status of engineers, public relations, community involvements, ethics, career guidance, committee participation, holding office, voting on policy matters, and related activities.

List of NSPE Publications and Services

Legislative Bulletin—This publication is issued monthly, summarising Federal legislation introduced into Congress and as it progresses through the legislative process. It is a four-page bulletin.

Legislative Opinion Request—This publication requests the opinion of those receiving it as to their position on various legislative proposals which may be introduced from time to time. It attempts to summarise with sufficient details to be understood the elements of proposed legislation. It may be limited to a particular bill, or, if several bills have been introduced on the same subject, will attempt to summarise the thrust of the legislation and the variations in the proposals.

Legislative Action Report—This is issued as legislature progresses through the various stages of consideration. It suggests to those receiving it the desirability of contacting their legislators with the position of the Society and is the mechanism by which the profession can be most effective.

Practice Section Newsletters—NSPE has four Newsletters, one each for engineers employed in government, industry, private practice and education. The Newsletters primarily report significant developments in the area of employment for each group

of engineers. Items reported range from significant statistical information, reporting on studies of value to that type of employment, employment practices, salary and economic considerations and similar concerns.

Professional Engineers Employment Referral Service (PEERS)

—This service, to which only members of NSPE are eligible, permits an unemployed, or soon-to-be-terminated, engineer to place his name and a short résumé on his experience on file with NSPE. These are summarised and sent without individual identification to over 1,000 employers. If the employer is interested in the anonymous summary, a contact to NSPE will provide him with the name and address of the individual so that he may contact him to get a full résumé, together with any details concerning employment.

NSPE Retirement Programme—This programme is a combined annuity and mutual fund programme to which NSPE members are eligible, providing for an investment programme with guaranteed annuity through an insurance aspect and a variable annuity return via the mutual fund.

Salary Survey—The NSPE conducts a biennial survey of the income of its members and reports the results in a variety of breakdowns by age, field of employment, type of work assigned and degree of responsibility.

IEEE Soundings

The Soundings Service consists of series of quarterly audio reports on topics of vital significance to the practicing electrical/electronics engineer. The January 1971 edition of IEEE Soundings looks at such questions as the changes which v be made to improve air traffic control's ability to handle double and triple the present volume of air traffic; the characteristics of the 'ultimate' system which could bring all air traffic under automatic computerised control with reasonable equipment costs for the smallest and the largest aircraft; the evolutionary approach in ground-supported flight aids now under implementation by FAA; some important practical steps in the design of avionics, based on economic trade-offs in system weight and environmental packaging; the modern approach to practical redundancy for highly reliable systems.

Soundings is available from the IEEE by subscription at \$26 a year and as individual cassettes at \$7 each. For ordering and additional information contact the Educational Registrar, IEEE, 345 East 47th Street, New York, New York 10017, USA.

Reduced Dues for Unemployed Members

The Board of Directors of IEEE has authorised the reduction, by 50%, of all dues and fees for those members of the Institute currently unemployed. This step was taken in recognition of the economic conditions currently prevailing.

IEEE members who are currently unemployed through involuntary termination and are actively seeking re-employment, may continue their IEEE membership to December 1971, with all privileges, publications and services covered by membership dues (and by Group or Society fees, and subscription fees, if any) by payment of one-half of the established dues and fees. To take advantage of this arrangement, a signed statement must be submitted to IEEE Headquarters indicating that the member is involuntarily unemployed and seeking re-employment. Any member who is unemployed and has already paid the full dues and fees for 1971 will be sent a rebate for the excess paid upon receipt of his unemployment notification and a request for rebate.

What Do you Want? (by H. C. Barnes, President, IEEE Power Engineering Society)

Since the announcement that we now form a Society, I have received many queries of 'What is the difference between Group and Society . . . is there a real change or is it just a continuation of the group activities under a new name?' A good question; tough the answer. I believe that the answer lies in the title question, 'What do you want?', that we can make it whatever the majority of the membership desires and I hereby invite you to tell us what you want. I cannot promise to satisfy all, but I do promise a good try.

At the risk of being criticised, I present a few of my thoughts. First, I am proud to be engaged in electrical power engineering and the electrical power industry. I am proud because of the benefit it has brought to mankind, in providing the lever that made possible the raising of man from virtual enslavement to at least a humane level of existence. We need not bow to any other profession on this point. The fact that this advantage is not yet realised by all of society leaves much for us to do; power usage is going to escalate, not because we push its sales, but because of the needs of society.

Electric power is here to stay because it is a vital need. Here, I believe, is where the focus of our new consciousness as a Society should rest—increased awareness of our responsibilities to society. Currently the subjects of environment and

ecology are high on the list of public concern, as well they should be.

But, in the context of Power and Life, what else do you want? How do we better bring our wares to more of our members? Our Winter Meeting in New York and our Summer Meeting in the West serve the coastal areas, but what about in-between? Are our special technical sessions satisfying these needs? What of the approximately 20% of our membership residing outside of our home base of the USA? Are their interests being properly satisfied?

Do our technical committees cover all necessary technical areas? Are our technical committees supplying sufficient support for section and chapter meetings? Is our standards activity adequate? What information do you want that is not available in PA & S and the Newsletter. Engineers are not noted for their abilities in public relations. Do we need a committee on public opinion. On aesthetics?

Tell me what you want. Your Administrative Committee is open-minded and most interested in your views.
(Extract from 'Power Engineering Society Newsletter').

MEETINGS IN REGION 8

The Management of Transmission and Distribution Systems

—A conference, to be organised by the IEE, in association with the British Institute of Management and the IEEE, UK & RI Section, will take place at the IEE, Savoy Place, London, England, from 26-29 April 1971.

The Conference programme covers six main areas, the Engineering Organisation, Management and Planning, Management of Design, Management of Construction, Management of Operations and Management of Essential Services. Provisional programmes and registration forms may be obtained from the Manager, Conference Department, IEE, Savoy Place, London WC2R OBL.

Aerospace Antennas

A Conference will be held at the IEE, London, from 8-10 June 1971 concerned with the special problems of design of antennas of aircraft, space vehicle and communications satellites. Particular emphasis will be given to the design of electronically-steered arrays for aircraft and the design of airborne aerials to be used with aeronautical communications satellites. There are especially topical papers on 'An Airborne Phased Array for use in an Air Traffic Control Satellite System', 'A Microstrip-pin Diode Controlled L-Band Digital Phase Shifter' and 'A Review of Helicopter Aerial Problems'.

The Conference is being organised by the IEE, in association with the Institution of Electronic and Radio Engineers, the IEEE, UK & RI Section, and the Royal Aeronautical Society. Provisional programmes and registration forms may be obtained from the Manager, Conference Department, IEE, Savoy Place, London WC2R OBL, England.

Displays

The IEE is organising a Conference on Displays, in association with the British Computer Society, the Society for Information

Display (British Chapter), the Biological Engineering Society, the Ergonomics Research Society, the IEEE (Man-Machine Systems Group), the Institute of Physics and the Physical Society, and the Institution of Electronic and Radio Engineers.

The Conference will take place at the University of Technology, Loughborough, from 7-10 September 1971. Papers are expected to be presented in the following areas: Man Display Interaction; Display Systems; Display Engineering and Software; New Technology. Provisional programmes and registration forms will be published in the early Spring of 1971. Those wishing to obtain copies should apply to the Manager, Conference Department, IEE, Savoy Place, London WC2R OBL, England.

Centralised Control Systems

The IEE is organising this Conference in association with the IEEE, UK & RI Section, the Institute of Measurement and Control and the Institution of Electronic and Radio Engineers. It will take place at the IEE, London, from 28 September to 1 October 1971.

The contributions to be included in the programme will be of interest to those responsible for centralised control of the distribution of energy, fuel, water, etc. Whilst the central theme will be the design and operation of alarm systems, remote control, signalling and telemetry including special problems arising from the use of radio and line channels, it is intended that the programme will also include a 'round table' session on control room philosophy and that there will be a keynote discussion on 'Why Centralised Control?'

A provisional programme and registration form will be published in late Spring. Those wishing to obtain copies should apply to the Manager, Conference Department, IEE, Savoy Place, London WC2R OBL, England.

NEWS OF THE SECTIONS

BENELUX SECTION

On 2 February 1971 a technical meeting of the Section was held in Mol, Belgium. During this meeting the new Executive Committee of the Section was elected as follows: Chairman, Mr. E. Reygaerts; Vice-Chairman, Mr. F. Valster; Secretary/Treasurer, Mr. P. Debois; Past-Chairman, Dr. F. L. Stumpers; Member-at-Large, Mr. Kwakernaak. Mr. Debois's address is: evelaan 40, B 2570 Duffel, Belgium.

DENMARK SECTION

The last two meetings of the nine held during 1970 were as follows: 2 December: The Annual meeting of the Section, as stated in the By-laws, constituted the first part of the meeting. The second part was a presentation of the paper 'Basis Concepts in Engineering and Economics, a System Science Approach' by Associate Professor Dr. O. I. Franksen, Electric Power Engineering Department, Technical University of Denmark. The paper describes the meaning of measurements transferred to economical variables, the elasticity concept or the law of Otma in economics and finally the first law or the law of conservation used in closed economy.

9 December: The presentation of 'New Radiocommunication Medias' by Associate Professor P. E. Gudmansen, Laboratory of Electromagnetic Field Theory, Technical University of Denmark. The lecture explained satellite communication systems, progress in radio communication and trunk waveguide communication. The meeting was held through co-operation with the IEEE Denmark Section, the Laboratory of Electromagnetic Field Theory and the Danish Engineering Association. The attendance was 35.

During the Annual Meeting the Chairman, Mr. P. M. Larsen, gave the following review of the number of members, etc.: Fellows 3 (1); Senior Members 11 (12); Members 129 (74); Associate Members 21 (21); Student Members 69 (67); Total 224 (175). The numbers in parentheses refer to the position at 15 December 1969.

The Executive Committee of the Section for 1971 is—Chairman: Associate Professor P. M. Larsen; Vice-Chairman: Mr. G. F. Hansen; Secretary/Treasurer: Associate Professor P. E.

Gudmansen; Assistant Secretary/Treasurer: Mr. H. V. Jacobsen; Contributing Editor: Mr. J. A. Richter-Nielsen; Student Counselor: Mr. E. Nilsson.

The Executive Committee has sent a petition for forming a Student Branch at the Technical University of Denmark, the Danish Engineering Academy and the Copenhagen Engineering College and hope soon to receive approval.

The Danish engineering press has, on an enquiry from the Executive Committee, agreed to carry sufficient publicity about EUROCON 71.

The Executive Committee is planning an excursion to the University of Lund, Sweden, where topics like automatic control and telecommunication will be the principal points in the lectures.

ISRAEL SECTION

Officers of the Section are as follows: Chairman, Mr. G. Meltzer; Vice-Chairman, Mr. Y. Lavi; Secretary/Treasurer, Mr. E. Gunderson. The Seventh National Convention is to be held from 19-22 April on Tel Aviv Fairgrounds. Extensive exhibition facilities have already been almost doubled and about 80 lectures and papers are planned. Copies of a first announcement and call for papers, an information sheet for exhibitors, an application for space in the Convention's exhibition, and an exhibition plan are available from Mr. E. Gunderson, the Secretary/Treasurer.

MIDDLE AND SOUTH ITALY SECTION

On 8 February 1971 a meeting of the Section was held at the University of Rome. Professor B. Peroni, Director of the Institute of Electronics of the University, gave a lecture on 'Radio Communications at Frequencies over 10 GHz'. The lecture dealt mainly with the problems of rain interference in the frequency range over 10GHz, and also reported the main lines of a research programme concerned with this field, and aimed to increase the knowledge of radio waves propagation in the presence of a rain distribution.

Before the lecture, Professor R. Koch, Chairman of the Section, presented to Professor G. Barzilai the Certificate of

Appreciation and the IEEE pin for his activity as Chairman of the Section to the end of 1970.

NORWAY SECTION

The election of Section officers for 1971 took place recently by mail ballot. The ballot returns were approximately 50% and the following were elected: Chairman, Mr. J. Skovholdt, Oslo; Vice-Chairman, Dr. D. T. Gjessing, Kjeller; Secretary/Treasurer, Mr. R. Ekholdt, Kjeller.

The Twenty-third Norwegian Electronic Engineers' Annual Convention, sponsored by the Norwegian Society of Professional Engineers, the Polytechnic Society, the Norwegian Association of Electrical Engineers, and the Norway Section of the IEEE, will be held at the SAS Royal Hotel, Bodo, from 18-20 June 1971. The regular meeting programme for the beginning of 1971 will be planned in co-operation with the national societies.

SPAIN SECTION

The election for the Spain Section Executive Committee was made on 3 December 1970, with the following result: President, R. T. Segovia; Vice-President, D. A. L. Saenz; Secretary, F. S. J. Asenjo; Treasurer, J. M. H. Rabanos; Officers: A. J. Santonja, A. F. Huerta, E. P. Mandado, A. H. Millan, J. M. Nicolau, F. M. Vitini, F. M. Cruz, J. S. Minana, F. H. Galvan, J. A. del Gorgio, H. W. Louderback. A meeting to make presentation to the Section members of the Spain Section Executive Committee took place on 21 December.

SWITZERLAND SECTION

For obvious reasons of practical efficiency, the Switzerland Section introduced many years ago the principle of recruiting their Section officers from the same geographical area. This 'bunching technique' also applies to the newly-elected Executive Committee, whose centre of gravity is now in the French-speaking part of Switzerland.

It is composed as follows: Chairman, Prof. R. Dessoulay, Lausanne; Vice-Chairman, Mr. H. A. Laett, Berne; Secretary/Treasurer, Prof. F. E. Gardiol, Lausanne; Counselor EPF-L, Prof. F. de Coulon, Lausanne; Counselor ETH-Z, Prof. F. E. Borgnis, Zurich; Student Advisor, Mr. F. Eggimann, Oberengstringen; Student Branch Chairman, Mr. R. Hausmann, Effritakon; Immediate Past-Chairman, Mr. H. Giddelmann; Members-at-Large, Mr. J. W. Herbstreit, Mr. M. H. O. Strutt.

The Annual General Meeting, which was held in Berne on 20 January 1971, noted with great satisfaction the steady growth of the Section, now totalling 498 members, of which 88 are students. The Section was also happy to be able to congratulate Messrs. E. Baumann and H. Weber, both Professors at the Swiss Federal Institute of Technology, Zurich Branch, on their nomination as Fellows.

Before adjourning to a more sociable and gastro-

A new Student Branch has been started at Lille Faculty of Sciences, France.

Two new student counselors have been appointed, one in Madrid, where the Student Branch Counselor is Prof. J. M. Herlano; the second Student Counselor is on Genoa, Italy,

IEEE TIES

The ties are made in England exclusively for IEEE members by a leading manufacturer of club ties from material having in the weave a discreet pattern of small IEEE symbols in gold with a black fill-in.

There is a choice of five background colours: black, navy blue, green, maroon and grey and the price per tie including postage is:

Within the area of the United Kingdom and Republic of Ireland Section £1.25.

Outside this area (to cover additional handling and postage) 4 U.S. dollars or equivalent at current rate in any currency convertible into sterling.

Send orders with remittance or cheque (payable to County Secretarial Services) or write for order form to IEEE County Secretarial Services, 8 The Flower Walk, Guildford, Surrey, England.

nomical activity, the members visited the Technical Overseas Control Centre of Radio-Suisse Ltd.

UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION :

Inaugural Meeting of the Engineering Writing and Speech Chapter

The EWS Chapter will hold its inaugural meeting in the IEE building, Savoy Place, London WC2, at 6 p.m. on Wednesday, 2 June. The meeting will present a unique introduction in the form of a playlet, to illustrate right and wrong ways of verbal and visual presentation of a technical lecture. This will be followed by a discussion period in which members of the audience can put their views to a panel of experts. All those interested are welcome and need not be members of the EWS Group or even of the IEEE.

Postal Strike

The Section apologises to members in other Sections who have been unable to communicate with us by letter. Both inward and outward mail was cut off while the strike was on. The strike held up the ballot for electing members of the Executive Committee, and the results are not known at the time of going to press. The Annual General Meeting had to be postponed; it has now been arranged for 3 May.

Annual subscriptions to IEEE should have been paid at the beginning of the year, but a special dispensation from Headquarters has been given, because of the postal strike, to allow members of the UK & RI Section an extra 45 days grace.

C. G. Mayer

Cornelius Graham (Rip) Mayer, OBE, C.Eng., FIEE, one of the founders of the UK & RI Section, then successively Committee member, Vice-Chairman and Chairman, died unexpectedly on 2 February at the age of 65, just over a month after assuming office.

Following study at the Imperial College of Science and Technology, Rip Mayer served with the Western Electric Company until the outbreak of the Second World War, when he joined the United States Navy and reached the rank of Commander as a senior liaison officer with the British Forces, for which he was made an Officer of the British Empire. After the War he held senior executive positions with the Radio Corporation of America in the United States and in Europe until becoming European Director of the Chicago-based group GU (Overseas).

An American who chose to make his home in England, Rip Mayer was a familiar figure at international conferences and was largely responsible for stimulating the formation of an IRE Section in the United Kingdom which could play an active part in the development of Region 8. He was looking forward to further service during his period of office, and that he was unable to take up his responsibilities is a sad loss to the Institute as a whole, no less than to the UK Section and to Region 8.

IEEE TIES

The report in the last Newsletter about IEEE ties lost in transit to County Secretarial Services brought a number of enquiries from members who were unaware that they were available. Information is given below.

STUDENT ACTIVITY NEWS

and is Prof. P. Antognetti.

The Fifth Student Paper Contest will take place at Ecole Breuet, 81 rue Falguiere, Paris XV, France, on Friday, 16 April, 1971, in the morning. In the afternoon a Student Activity Committee meeting will take place.

The Editor regrets that this issue is late in being published, partly because of the postal strike in the UK, which also restricted the material from which he selected its contents. Any items of particular interest which have not yet reached him will be included in future issues.