

IEEE Region 8 newsletter



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. 26

April 1974

FRONTIERS IN EDUCATION

At the time of going to press the European Conference on Electrotechnics, EUROCON '74, is about to open. Very many people have contributed a great deal of time and effort to make this a successful event—not only IEEE members, but also many who belong to one or other of the National Societies of Electrical Engineers of Western Europe constituting the Convention which has organised EUROCON '74 jointly with the IEEE. A great debt of thanks is owed to all

Eurocon '74 is based on collaboration between Region 8 of the IEEE and a grouping of National Societies in the Region but another pattern of conference can result from co-sponsorship between one of the many IEEE Groups or Societies and a National Society in one of the Sections of the Region, stimulated by a Chapter having been formed in the Section.

Such is the Frontiers in Education Conference, the annual meeting of the IEEE Education Group (G25) which will this year be held outside the U.S.A. for the first time. FIE '74 will be held at University College, London from 15 through to 19 July, 1974, and is being organised, hosted and co-sponsored by the Institution of Electrical Engineers.

The frontier theme for the conference is the role, application and scope of educational and training technology, and its potential for improving the learning process. This theme will be covered in four sections—Distant Study Systems, Systems Planning, Computer-based Systems and Self-teaching Systems, while a fifth section will deal with the broad socio-economic background of education and training. A total of 212 papers has been submitted, half of them from countries other than the UK, and 110 have been accepted.

There is extensive international interest at the time this was written, over a third of the registration enquiries received were from countries other than the UK—and the Organising Com-

mittee expect an attendance of 400 to 500. An added attraction is that INTERNAVEX '74, the largest audio visual aids exhibition held in the UK, will take place in London during the same week.

There will be a small non-commercial, technical exhibition of working equipment associated with the subject matter of the Conference. Some of this will form the basis of workshops, which are an important part of the programme and will be devoted largely to small discussion groups and to providing opportunities for delegates to gain practical experience of apparatus referred to in papers. A number of equipments will operate over specially installed computer links, including a transatlantic line.

The five sections of the Conference will be dealt with in parallel sessions. In addition a number of papers of special interest will be presented in plenary sessions.

The Organising Committee has gladly accepted a proposal made on behalf of the Education Group to continue the practice at the annual FIE Conference of presenting a plaque and symbol for the best paper. The chairman of the award committee is Professor Edwin Jones of Iowa State University.

FIE '74 is co-sponsored by the American Society for Engineering Education in addition to the IEE and IEEE, and among the bodies associated with it are five UK Government Departments, the British Broadcasting Corporation, the Independent Broadcasting Authority, the Open University and the Industrial Council for Educational and Training Technology.

Further programme information and registration forms are available from 1974 Frontiers in Education Conference Secretariat, c/o The IEE Conference Department, Savoy Place, London, England, WC2R 0BL.

INSTITUTE NEWS

Rights of Engineers and Scientists

A "Resolution on Basic Human Rights of Engineers and Scientists" was passed by the IEEE Board of Directors in September 1973. Here is the text of that resolution—

"The Board of Directors of the IEEE is keenly interested in the welfare of engineers and scientists everywhere.

"This Board views with great concern the infringement on basic freedoms wherever they occur, particularly when engineers and scientists are singled out as the victims because of their profession.

"This Board regrets that many engineers and scientists and their families have been denied their right to emigrate in violation of recognised international practices (The International Covenant on Civil and Political Rights, UN document A/RES/2200(XXI), adopted by the United Nations' General Assembly

on 16 December 1966, states in Part III, Article 12, Paragraph 2: 'Everyone shall be free to leave any country, including his own'), often solely because of their professional qualification in science and engineering.

"These practices seriously endanger the spirit of trans-national friendship and co-operation on which the operation of this Institute is based. The Board of Directors of the IEEE appeals to its sister organisations, and to the national academies of science and engineering or similar institutions in every country, to join in support of equal human rights for engineers and scientists."

Dues Renewal Payments

The Board of Directors, on 30 November 1973, adopted amendments to the IEEE Bylaws which extend the grace period in which members in Regions 8, 9 and 10 are required to remit dues renewal payments. The revision now reads—"The first instalment (of membership dues) for Regions 1-7 shall be paid not later than two months, the first instalment for Regions 8, 9 and 10 shall be paid not later than four months, and the second instalment for all Regions not later than eight months after the beginning of the annual dues period."

IEEE Publications

"Computer-Aided Filter Design", a volume of selected reprints edited by G. Szentirmai of Cornell University, has been published by the IEEE Press. In a tutorial introduction the editor

Published quarterly—next issue July

Deadlines—

News to Editor	-	-	-	June	7
Advertisements to Sweatman	-	-	-	June	15
and Fordham	-	-	-	June	15
Delivery inserts to County Secretarial	-	-	-	July	1
Services	-	-	-	July	1

discusses the design fundamentals of filters for analog signals and comments on each of the 45 reprinted papers. The major topics covered by the papers are approximation, synthesis, optimisation, sensitivity, and the time-domain design. An extensive bibliography and author and subject indexes are included. This 448-page book, sponsored by the IEEE Circuits and Systems Society, is priced at \$7 for the paperbound member edition. A clothbound edition is available for \$10.45. Just published is "Laser Devices and Applications". It provides a tutorial introduction to the exciting field of lasers of various types and their uses in such areas as communications, industry and holography. It is a brand-new 504-page volume, loaded

with photos, charts and diagrams, for just \$7.50.

IEEE Standards 1974 Catalogue is now in print. It lists over 350 standards publications by subject as well as in numerical sequence and is available free of charge. Included in this year's catalogue are many of the American National Standards published by the IEEE. Single copies of the catalogue are available by writing to the IEEE Standards Department.

IEEE Press books are now available for purchase in bulk quantities by Groups/Societies or other appropriate IEEE units at a 30% discount. They may then sell the books at list price. Consider this new policy as a possible way to earn additional income at a large meeting or exposition.

REGION 8 NEWS

REGION 8—SECTION CHAIRMEN AND ADDRESSES

The following list of names and addresses of current Chairmen of the 18 Sections of the Region is given for the convenience and use of members. Please contact your local Section Chairman for any information or queries in connection with the Institute. This includes queries about local meetings, speakers' tours, supply of educational materials and membership information.

Section	Name and Address
Benelux	Mr. F. Valster N.V. Philips Gloeilampenfabrieken Philips Research Labs Eindhoven, Netherlands.
Denmark	Professor P. E. Gudmandsen Technical University of Denmark Lab. Electromagnetic Field Theory Build. 348 DK-2800 Lyngby, Denmark.
Egypt	Mr. M. A. B. El-Koshairy 22 Ibnzenki St Zamalek Cairo, U.A.R.
Finland	Professor M. E. Tiuri Helsinki University of Technology 02150 Otaniemi, Finland.
France	Mr. J. Voge 5 Avenue a Bartholomé Paris, France.
Germany (West)	Professor W. Kleen Siemens A.G. 8 München 80 Wittelsbacherplatz 2 West Germany.
Greece	Mr. J. D. Flambouriaris 69 Kifissias Avenue Athens 605, Greece.
Iran	Mr. A. Rahimi E.E. Department Arya-Mehr University of Technology P.O. Box 3406 Tehran, Iran.
Israel	Mr. G. Meltzer Tadiran 3 Derech Hasholom, Israel.
Italy (Mid. & South)	Mr. V. Cimagalli via Andrea Busiri Vici 42 00152 Rome, Italy.
Italy (North)	Professor F. Reggiani Bastioni di Porta Volta 10 20100 Milan, Italy.
Norway	Mr. J. Skovholt Technical Director Gustav A. Ring A/S Sørkedalsveien 33 N - Oslo 3, Norway.
Poland	Professor A. K. Smolinski ul Polna 54-48 00-644 Warsaw, Poland.
Spain	Dr. A. Lara-Saenz 144 Serrano St. Madrid 6, Spain.
Sweden	Mr. C. A. Wannernskog Box 49025 S-40064 Gothenburg, Sweden.
Switzerland	Dr. Pierre Schmid Oberdorfstrasse 191 8165 Oberweningen Switzerland.
UKRI	Mr. R. H. Davies Ferranti Ltd., Hollingwood, Lancashire, England.
Yugoslavia	Professor M. Gruden Univerza v. Ljubljana Fakulteta za elektrotehniko Trzaska 25 Ljubljana, Yugoslavia.

MEMBERSHIP AND TRANSFER ACTIVITIES

October 1973 Newsletter Campaign

About 160 of the postcards included in the October 1973 Newsletter were returned, resulting in 58 membership information brochures, 4 applications for re-instatement, 116 application forms for transfer to higher grade and 19 Fellow nomination forms being sent out. In addition, 25 members suggested additional activities or services, and 29 offered to take a more active part in IEEE activities. It seems that the main results from this first campaign will be an increase in the transfer to higher grade, but it should also lead to an increase in new members and Fellow nominations. I would like to take this opportunity of thanking all those members who replied and of assuring them that their applications and offers will be actively followed up.

Dues Arrears and Resignations

Region 8 lost 816 members during 1973; 694 failed to pay their dues and 122 resigned. While this is an improvement over 1972, when the loss was 902, it is still much too large, and I hope that it can be drastically reduced in 1974. I assume that you have already paid your current dues; but if this is not the case I urge you to do so immediately, to avoid the break in shipment of publications and services that will otherwise occur at the end of April. If for any reason you should feel that you are not benefitting sufficiently from IEEE membership, please reconsider all the services that are available. Pay your dues and write to your Section Chairman or to me, making suggestions for improvement.

New Members

1973 was a good year for Region 8. 1055 were elected to IEEE membership—665 to student grade and 390 to other grades—and the total membership increased from 5954 to 6448. An increase of 494 in 1973 is a great improvement on a decrease of 34 in 1972, but I know you would all like to see us do even better in 1974. For this we need your help. Many of your colleagues would—as you do—benefit greatly from IEEE membership, so bring the opportunity to their attention and point out to them that only half dues will be charged for the rest of 1974 while the services start immediately. *Included with this Newsletter is a letter and brochure about IEEE membership and I suggest that you give this to a fellow electrical or electronics engineer or scientist, or circulate it to your colleagues.* By this small effort you will help to spread the information about IEEE services within Region 8. I do hope I can count on your co-operation.

Andreas Rannestad

Region 8 Member, IEEE Member and Transfer Committee,

A Van Dycklaan, 13

B-1980 Tervuren

Belgium

Election of Fellows

Your Editor wishes to apologise for omitting from the list published in January the name of Friedrich W. Gundlach. This name appeared at the end of the list under the heading "No Section Assignment" and gave the citation "For contributions to the development of microwave tubes".

Management Game

If your training in engineering management equalled your training in engineering, how much faster would your managerial career progress? You have been given extensive training in all aspects of engineering, yet when it comes to management you're pretty much left on your own.

To help you fill this all-important knowledge gap, IEEE is pleased to offer you the Engineering Manager Game Seminar. Structured in three major units, the Seminar is a totally new correspondence programme, the first such course designed specifically for all levels of engineering management, from project engineer to engineering division head. The Seminar is conducted for the IEEE by Management Games Institute, Larchmont, New York, USA. It employs the novel managerial game techniques of previous MGI programmes, with one important

innovation. If you wish, you can carry out the managerial tasks in the Seminar by dealing with *real* situations within your own *real* organisation. (Of course, you can still use simulated situations if you prefer.)

As you will see from the brochure available from Mr J. M. Kinn at Headquarters in New York, the three units of the Seminar cover the entire range of engineering management,

including finance, budgeting, planning, estimating, personnel management, project control, department management and the like. Most important of all, the course shows you how you can become an entrepreneurial manager—the key to rapid advancement in the management of any firm—how to operate your project, section or department with the same vigour and skill you would devote to a company of your own.

MEETINGS IN REGION 8

International Workshop on Computer Hardware Description Languages

This Workshop will be held at Technische Hochschule Darmstadt, FR Germany, on 31 July and 1 August 1974, and is sponsored by ACM-German Chapter and the IEEE Germany (West) Section. The Conference Chairman is Prof. R. Piloty, Hans-Busch-Institut, Technische Hochschule, Merckstrasse 25, D-61 Darmstadt, FR Germany; and the Programme Chairmen are Prof. J. Lipovski, Center for Informatics Research, University of Florida, Gainesville, Fla. 36201, USA, and Prof. R. Hartenstein, Institut für Informatik IV, Universität Karlsruhe, D-75 Karlsruhe 1, FR Germany. For more information please send your request to Prof. Piloty or Prof. Lipovski.

Second International Joint Conference on Pattern Recognition

This Conference will take place in Copenhagen from 13–15 August 1974 under the Chairmanship of Prof. C. J. D. M. Verhagen, Delft University of Technology, the Netherlands, with IEEE sponsorship through the Computer Society. The Conference will cover all aspects of theoretical and applied pattern recognition. Information may be obtained from Mr E. Backer, Electrical Engineering Department, Delft University of Technology, Delft, The Netherlands.

Conference on Design Automation on Information Processing Systems and their Components

This Conference, to be held at Karlsruhe, Federal Republic of Germany, from 25 to 27 September 1974, is sponsored by the Nachrichtentechnische Gesellschaft within the German Institute of Electrical Engineers, in co-operation with the Germany Section of the IEEE. The aim of the Conference is to give a survey of the many aspects of digital system design automation, with special emphasis on general concepts.

The sponsors intend to make the Proceedings available by the end of 1974. Further information is available from Prof. H. M. Lipp, Institut für Nachrichtenverarbeitung, Universität Karlsruhe, D-7500 Karlsruhe 1, Postfach 6380, Federal Republic of Germany.

A Conference on New Display Devices (Tubes and Flat Cells with Vacuum, Gas, Liquid Crystals and Related Principles) will be held from 23–25 October 1974 in Bad Nauheim, Federal Republic of Germany, sponsored by the Fachausschub 4: Röhren und Bauelemente verwandter Technologie of the Nachrichtentechnische Gesellschaft im VDE in co-operation with the Germany Section of the IEEE. The Conference will give a survey of the possibilities of realisation and application of these new devices. The programme will cover the various principles of displaying digits, letters and images with respect to tube or cell technology, addressing, life time, special applications, comparison of various techniques. The language of the Conference is German, and papers in English are permitted. Further information is available from the Programme Chairman: Dr G. Meier, Institut für Angewandte Festkörperphysik der Fraunhofer-Gesellschaft, D-7800 Freiburg i.Br., Eckerstrasse 4, Germany.

International Conference on Microprocessors

At the "Journées d'Electronique" last year, some 450 participants, representing 13 European countries and North America, gathered around the subject "A/D and D/A Conversion". The audience attended tutorial lectures about basic concepts and specialised sessions devoted to technological and application subjects. Panel discussions allowed the auditors to exchange opinions with the authors, some of them belonging to the biggest converters manufacturers in the world. The Proceedings, binding the complete texts of the lectures, are issued each year after the Symposium. The volume contains 580 pages and is available for SFr.50, until out of stock.

The dates of the next "Journées d'Electronique" have been fixed for 15 to 17 October 1974, on the theme of "Microprocessors", and authors are requested to submit papers on the organisation, design and utilisation of them. Areas of interest include structure of existing or planned microprocessors, memories, simulation, software, debugging techniques and applications in which the role of the microscope is emphasised. Papers, in English or French, should be suitable for a 20–30 minute presentation and must not include general introductory matters, which will be presented in a first session of invited papers intended for non-specialists. Authors must submit three copies of a 300–500 word summary by 31 May

1974 to Prof. R. Dessoulavy, Swiss Federal Institute of Technology, Bellerive 16, CH-1007 Lausanne, Switzerland.

Linear Electric Machines

This Conference is organised by the Institution of Electrical Engineers in association with the IEEE UKRI Section, and will be held in London from 22–24 October 1974.

The objectives of the Conference are to bring together all those interested in the subject in order that they may exchange information on the latest state of the art, and to point the way to future developments in a technology which is likely to become even more useful now that engineers are fully aware of the desire to improve systems without polluting the atmosphere and without increasing the generation of noise. It is proposed to devote a whole day of the Conference to high-speed ground transportation. Registration forms and further programme details are available from the Conference Department, IEE, Savoy Place, London WC2R 0BL, England.

International Conference on Developments in Power System Protection

Organised by the Institution of Electrical Engineers, in association with the UKRI Section of the IEEE, this Conference will be held in London from 11–13 March 1975, to provide a forum for a review of present problems, new developments and future possibilities in the field of power system protection. The Conference will be particularly concerned with recent developments resulting from advances in protection technology and with possible future developments including the application of digital computers to power system protection.

The Conference will be held at the IEE, Savoy Place, London WC2R 0RL, England, and further particulars are available from the Conference Department at that address.

First Major European Symposium and Exhibition on EMC

An International Symposium and Technical Exhibition on Electromagnetic Compatibility (EMC) is scheduled for 20–22 May 1975 at Montreux, Switzerland, under the patronage of the Swiss Federal Telecommunications Authority (preceding the Ninth International TV Symposium and Exhibition at Montreux from 23–29 May 1975). Co-sponsors are IEEE Region 8, the IEEE G-EMC, the Committee AE-4 on EMC of the Society of Automotive Engineers, the International Union of Radio Science, as well as the Convention of the Societies of Electrical Engineers of Western Europe (and further co-sponsors are expected).

The Symposium will cover the entire field of interaction between man-produced electromagnetic radiation and electric and biological systems. Topics will include social and economical impact of EMC, international co-operation, standards and specifications; spectrum management, electromagnetic pollution control; compatibility of electric power, automation and communications; noise immunity of electronic systems, analog and digital; biomedical effects of rf energy, EMC in medical electronics, rf safety hazards; measuring methods, instrumentation, testing and analysis; interference control in design and production.

An international exhibition will demonstrate the progress in suppression technology, design of compatible equipment, measuring techniques and advanced facilities for communications planning and interference control.

Paper summaries not exceeding 300 words should be received not later than 31 July 1974 by the Programme Chairman, Prof. F. L. Stumpers, Philips Research Laboratories, Eindhoven, Netherlands. The full text of papers will be made available in a Symposium Record.

1975 Conference on Dielectric Materials, Measurements and Applications

This Conference is organised by the Institution of Electrical Engineers in association with the IEEE UKRI Section, the Institute of Physics and the Institution of Electronic and Radio Engineers, and will be held at Churchill College, Cambridge, England, from 21–25 July 1975. The Conference is planned to interest those concerned with dielectrics. It is intended that the programme will cover the field widely without restriction as to frequency, temperature, pressure or other physical parameters including contributions within the following subject areas (a) behaviour and the underlying physical principles of solid, liquid and gaseous dielectrics (including biological

materials); (b) application of dielectric materials and techniques for measuring their properties.

The Organising Committee invites offers of contributions of not more than 2,000 words of text for consideration for inclusion in the Conference Programme. Those intending to make an offer should submit a 200-300 word synopsis to the

IEEE Conference Department by 29 July 1974. Acceptance of final papers, by 10 February 1975, will be as a result of assessment by a panel of referees. Further information is available from the Conference Department, IEE, Savoy Place, London WC2R 0BL, England.

NEWS OF THE SECTIONS

Denmark Section

"Optimisation" was the title of a joint meeting on 26 April 1973. Mr Schjaer-Jacobsen, from the Laboratory of Electromagnetic Field Theory, gave a talk concerning optimisation of antenna properties; Mr L. P. Holmblad, of the Electric Power Engineering Department of the Technical University of Denmark, covered on-line optimisation of processes by direct search methods; and finally Mr Hammershaimb, of the Laboratory of Electromagnetic Field Theory, told the audience about computer-aided optimisation of broad-band reflection type amplifiers.

At its meeting on 21 May 1973 the Section was host to Dr Isermann from the Stuttgart University. He discussed linear and non-linear processes and their identification for Fourier and correlation analysis by using parametric process modelling. Our meeting on 23 May covered superconductivity and some of its applications, and Mr S. Shapiro from the Department of Electrical Engineering, the University of Rochester, was the speaker. On 14 June Dr K. Chen from the Institute of Environmental Sciences, University of Michigan, gave a survey of growth policies and alternative futures. In the autumn only one meeting took place. That was on 29 November, where project "SANGUINE", the US Navy's proposed ELF communication system, was presented.

For the spring period of 1974, the following activities are planned:—meetings on vibration analysis; duet propagation over sea surfaces; acoustic measurement methods; micro-computers in process control; and joint meetings as follows:—a one-day meeting sponsored by the IEEE and URSI with the title "Microwaves and their Applications"; and a meeting sponsored by the IEEE and the Geophysical Society of Denmark with the title "Electromagnetic Remotesensors".

Switzerland Section

The Elected officers for 1974 are—

Chairman: Dr P. Schmid, Gretag AG, Althardstrasse 70, 8105, Regensburg;

Vice-Chairman: Prof. F. Gardiol, EPF-L, Ch.de Bellerive 16, 1007 Lausanne;

Secretary/Treasurer: Dr G. Guekos, ETH-Z, Haldeliweg 17, 8044 Zurich;

Assistant Secretary/Treasurer: J. Fasmer, ETH-Z, Gloriastrasse 35, 8006 Zurich;

Members-at-Large: Prof. E. Baumann, ETH-Z, Höggerberg, 8049 Zurich; Dr M. Christoffel, Rebhaldenweg 3, 5400 Ennetbaden; Prof. R. Dessoulavy, EPF-L, Ch.de Bellerive 16, 1007 Lausanne; J. Herbstreit, CCIR UIT, Place des Nations, 1200 Geneva; *Student Counsellors:* ETH-Z: Dr F. Eggimann, BBC, Department ENF, 5300 Turgi; EPF-L: Prof. F. de Coulon, Ch.de Bellerive 16, 1007 Lausanne.

United Kingdom and Republic of Ireland Section

At the Annual General Meeting held in February a plan was proposed envisaging Section activity in areas outside London. All members were asked to suggest names for consideration as "Area-Chapter" Chairmen; such appointments would require energetic individuals to seek out matters of technical interest to members resident in the area and arrange meetings to meet those interested. Use of the Outstanding Speakers Tours arrangement will be explored. An analysis by location of members' interests is being made to facilitate the arrangements. Dr R. L. Smith-Rose, who helped to found the Section twelve years ago and who has been its Treasurer ever since, has now handed on this responsibility to Mr B. J. Cory. A certificate to record this outstanding service to the IEEE was presented to him at the AGM.

The UKRI Executive Committee is exploring the possibility of forming additional local Chapters. Ideally these would be located away from London and would cover technical areas not already well provided for by IEE or IERE activities. Since an essential requirement for the success of a Chapter is the leadership of an active Chairman, the Committee hopes that a number of volunteers will respond to this appeal. In addition, suggestions for both suitable technical areas and provincial centres will be most welcome.

Please forward all communications to Professor C. W. Turner, King's College, Strand, London, WC2.

STUDENT ACTIVITY NEWS

A new membership presentation is being prepared. It will be a slide-tape show illustrating the benefits of IEEE student membership. Budding photographers should send good colour slides or pictures of their Branch activities to Bob Asdal at Headquarters in New York. They may also be used in the Student Newsletter or other IEEE publications.

The replies to the performance questionnaire circulated in 1973 have been tabulated and this report will be distributed to Branch Counsellors. The report is titled "Factors Relating to IEEE Student Branch Performance". It will provide a basis for matching your Branch's performance with others.

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) Collation charge if more than 1 insert

Weight < 21 g ($\frac{3}{4}$ oz.) \$250 } At present postal rates
Weight < 50 g ($1\frac{1}{4}$ oz.) \$325 }
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
Cosoc Guildford. Delivery address for inserts 8 The
Flower Walk, Guildford, Surrey GU2 5HH.