

# IEEE Region 8 newsletter



NEXT ISSUE — APRIL

COPY DEADLINE — MARCH 7

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.  
Telephone Leatherhead 74151 Telex 264045 ERALHD G

Regional Director: Prof. E. Folke Bolinder  
Chalmers University of Technology, Gothenburg, Sweden

No. 41 JANUARY 1978

## REPORT FROM THE REGIONAL DIRECTOR

The results of the election have been announced. The President for 1978 will be Dr Ivan A Getting, President of Aerospace Corporation and the Executive Vice President for 1978 will be Dr C Lester Hogan, the inventor of the microwave gyrator. On the ballot there were three constitutional amendments. The first proposition passed. It calls for submission of all board-nominated candidates for office by May 1 of each year and all petition candidates by June 1. The second proposition about having only seven geographical Regions, six of them in the United States, did not carry. I am very happy about that, of course. The third proposition provides for concurrence of any dues or assessment increase by a simple majority vote on a ballot to members. It did not carry. The following Regional (R) and Divisional (D) Directors were elected for 1978-79: R1, Shepherd; R3, Harris; R5, Vines; R7, Glass; R9, Rivera-Abrams; DI, Larson; DIII, Schwartz; DV, Merwin; and DVII, Fee.



On September 5-8 I attended the 7th European Microwave Conference in Copenhagen, Denmark, where I presented a paper on phased arrays. My efforts to meet the Denmark Section Executive Committee Members were not successful. One member told me on the phone in Copenhagen that the Student Branch was in a very bad shape. I was very disappointed. The Committee appointed by the Region 8 Committee to discuss plans for EUROCON '80 and which consisted of Mr M Buser, Switzerland (replacing Dr F Eggimann), Dr A Rannestad, Mr R Russell, Prof L Stumpers, and I met in Brussels on September 25. EUROCON '77, EUROCON '80 and other topics were discussed in detail.

On October 5 I arrived in Istanbul, Turkey and I was met by Professors A Dervişoğlu and C Acar from the Istanbul Technical University (ITU). It was sad to hear that Professor Tarik Özker, whom I had looked forward to meet, had passed away a short time before my arrival. Next day I visited Professor Y Tokad at the Marmara Scientific and Industrial Research Institute at Kadıköy, where I gave a technical lecture. On October 7 Professor Acar showed me the EE Department of ITU, the Bosphorus University was visited briefly, and a lecture was given at ITU. After the lecture a meeting was held with scientists interested in starting an IEEE Turkey Section, among them Professors Dervişoğlu and Acar from ITU, Professor Tokad, Dr T Basar, and Mr T Oray from the Marmara Scientific and Industrial Research Institute, and Professor T Biraud from the Middle East University, Department of EE, Ankara. I hope that the efforts to start a Section, which have been going on for a long time, finally will bear fruit. An invitation from Saudi Arabia to stop by at Dhahran to discuss the formation of a Saudi Arabia Section could unfortunately not be accepted because of the short time available to get a visa.

On October 10 I went to Tel Aviv, Israel to attend the Tenth Convention of Electrical and Electronics Engineers in Israel organized by the IEEE Israel Section, Chairman Mr Mark Shavit, who was also the Chairman of the Convention. Next day Mr Robert D Briskman, IEEE Secretary-Treasurer, representing the President of IEEE, and I, representing Region 8, took part

in a panel. On the panel were, among others, Professor E Katzir, President of the State of Israel, Minister I Horovitz and Mr Y Lavi, keynote speaker. Colonel Jacob Baal-Shem translated the main points of the speeches from Hebrew to English for me. Professor Katzir mentioned the tremendous development of electrical and electronics engineering in Israel; the total output of the industry was 350 million IL in 1966 and 3.76 billion IL in 1976. Mr Lavi spoke on "Information systems in modern society". On October 12 Mr Briskman and I addressed a meeting arranged by the Israel Section. New Section Officers took over, and Mr Baal-Shem became the new Chairman. I was invited to talk about the Chalmers phased array projects at the Convention. The jubilee Israel Convention was a great success. About 1400 participants registered, the technical papers, presented in Hebrew or English, seemed to be of good quality, a Proceedings was published, and there was an impressive exhibition. The final Eurel/IEEE EUROCON '77 Steering Committee Meeting took place in Milan, Italy on October 29, Professor A Gigli Chairman. A final report was presented. The industrial picture exhibition arranged by the Italians during EUROCON '77 resulted in a good sum of money. Mr Reginald Russell presented a cheque from the IEEE Headquarters in New York as advanced payment for the Proceedings sent to New York under the OOPS program. EUROCON '77 was a great success with more than 700 participants, and it is a pleasure to note that Eurel and IEEE have been co-operating in such great harmony. By the way, it appears that the next EUROCON '80 will take place at Stuttgart, Germany (West). On November 1 a dinner was given in London to celebrate the tenth anniversary of the Region 8 Newsletter. Participants were Professor Robert C G Williams, Mr and Mrs Reginald Russell, Mr and Mrs Robert C Winton, Mr and Mrs William H Devenish, and myself. On the next day I was invited to address the UKRI Section Executive Committee Meeting at Imperial College, London, which was followed by a technical lecture by Professor Robert Spence.

In the middle of November I attended a Foreign Directors Meeting, a Technical Activities Board Meeting (as observer), two Regional Activities Meetings, a San Diego Dinner Meeting, an Annual Assembly, a Board of Directors Meeting (two days), and a Long Range Planning Committee Meeting (two days) at San Diego, California. There will be a good surplus for the Institute for 1977 and no dues increase for 1978. The IEEE Standards are selling very well. The Regional rebates for 1978 were increased for Regions 8-10 due to the generosity of Regions 1-7. Thus Region 8 will during 1978 be compensated for the two latest cuts in the rebate. Seven Region 8 Student Branches have too few members and are in danger of being put on probation.

The result of the Annual Assembly election for 1978 was the following: Vice President (VP)—Educational Activities, Jerome J Suran; VP—Professional Activities, Bruno O Weinschel; VP—Publication Activities, Robert W Lucky; VP—Regional Activities, Paul F Carroll; VP—Technical Activities, Eric Herz; Secretary-Treasurer, Robert D Briskman; Director—Standards Activities, Joseph L Koepfinger; and Executive Director, Richard M Emberson.

Some Members in Region 8 are worried about the professional activities of the Institute. I am quite sure that the 1978 Board of Directors will be cautious in this field; it will stress the transnational character of the Institute, and it will preserve its technical excellence. Please remember that the professional activities have been voted in by the membership, and that they are funded by the 150 000 United States Members, who all pay an additional assessment of \$10 in addition to the \$35 all Members pay. I wish you all the best for 1978.

| DEADLINES                                       | PUBLISHED QUARTERLY |         |         |          |
|---|---------------------|---------|---------|----------|
|   | JAN.                | APRIL   | JULY    | OCTOBER  |
| News to Editor                                  | Dec. 7              | Mar. 7  | June 7  | Sept. 7  |
| Advertisements to County Secretarial Services   | Dec. 15             | Mar. 15 | June 15 | Sept. 15 |
| Delivery inserts to County Secretarial Services | Dec. 22             | Mar. 22 | June 22 | Sept. 22 |

Gothenburg, Sweden, December 7, 1977  
E Folke Bolinder



## REGIONAL COMMITTEE REPORT

This is a "Stop Press" summary of items of interest arising from the Region 8 Committee Meeting held in Madrid, December 9-10, 1977. Regional Director Folke Bolinder opened the meeting by welcoming IEEE President Bob Saunders and the Chairman of the Regional Activities Committee Doug Hinton.

Bob Saunders reported an improvement in the Institute's financial position. He had noted with surprise a "self-destruct" wish among members in Region 8; of around only 1 000 who voted on issues vital to the Region nearly 40 per cent had supported a Presidential candidate who wished to abolish the Region, and some 25 per cent had favoured a proposal seeking to amalgamate Regions 7, 8, 9 and 10 into a single Region.

Continuing difficulties were reported in Headquarters' handling of dues payments, and it was stressed that the best method of payment is by personal cheque sent by air mail and marked with the membership number.

EUROCON '77 generated more revenue than expenses; the surplus for Region 8 is expected to be not less than \$2000. Stuttgart is the likely venue for EUROCON '80; Messrs Mey (Swiss Section), Poortvliet (Benelux Section) and Russell (UKRI Section) were nominated Region 8 representatives on the Steering Committee, and Professor Stumpers (Benelux Section) was nominated Region 8 representative and suggested Chairman on the Technical Programme Committee. London and

Jerusalem are among cities under consideration as venues for EUROCON '83.

It was agreed that during 1978 Professor André Vander Vost should become Chairman of the Student Activities Committee, and Bob Winton become Secretary/Treasurer of Region 8.

On behalf of Region 8 President Saunders presented Professor Robert Williams with a plaque in appreciation of his services to Region 8 since its formation and for his outstanding leadership in originating the Newsletter ten years ago.

Reported that some progress had been made towards a Regional activity in engineering in medicine and biology, but Dr G H Byford, RAF Institute of Aviation Medicine, Farnborough, Hants, GU14 6SZ, UK, would still like to hear from members who are interested, stating if they are prepared to help actively.

Roger Wellinger asked that members prepared to review papers in their speciality with a view to their appearing in IEEE publications should advise Gerry Sursom, Chairman Publications Board, IEEE, 345 East 47th Street, New York, NY 10017, USA.

The next meeting of the Regional Committee is planned for May 5-6, 1978 at a venue to be fixed.

The Regional Director closed the meeting with thanks to the Spain Section for their excellent organizational arrangements and for their hospitality to the delegates.

## FINAL REPORT ON EUROCON '77

IEEE members in Region 8 will recall that the Eurocon conferences were founded with the object of bringing a wider range of benefits, other than publications, to their membership services and three conferences have now been held—in Lausanne, Amsterdam and Venice. It was also an objective to introduce innovation into the European conference field—to create a new type of conference. Following the first Eurocon, which was an entirely IEEE affair, the last two have been organized on a partnership basis with the Convention of National Societies of Electrical Engineers of Western Europe (EUREL).

The prime theme of Eurocon 77 was **Communications** and this was divided into ancillary parallel sessions: communications in large power systems; new developments in communications; communications in computers; communications and signal processing in medicine; and communications in developing countries.

In addition to 16 specially invited papers (mainly of a review nature by experts in their fields), 284 papers were submitted of which 191 were accepted and presented. The conference was well supported with a total of 706 participants from 36 countries.

Students were catered for at a special session devoted to Problems of Students and Young Engineers (73 students attended)—they had a meeting amongst themselves on the broad theme of what they expected from learned societies in the electrical engineering field. This was followed by a panel discussion with senior engineers at which they presented their views. As may be imagined, career prospects were also discussed. Since it is recognized that many engineers wish to familiarize themselves with management and business procedures a session was held under the title Managing the Future. Two topics were outlined—Techniques of Industrial Market Research and Methods of Technological Forecasting. Both led to an extremely lively interchange of views.

The full text of all papers presented is available in a special Proceedings (two volumes, 1357 pages) which may be obtained from IEEE Service Center, 445 Hoes Lane, PISCATAWAY NJ 08854, USA (list price \$50, IEEE member price \$37.50, catalog no. 77CH1257-5REG8).

The third Eurocon conference in Venice was a great success and an announcement will shortly be made in this Newsletter about the fourth EUROCON which is presently scheduled for Stuttgart in 1980.

## REGION 8 NEWS

The following Region 8 Members have been elected to Fellow grade as of January 1, 1978:

Professor Alessandro Alberigi-Quaranta, University of Modena, Via Vivaldi 70, 41100 Modena, Italy. For contributions and technical leadership in the fields of nuclear electronics and charge transport in semiconductors.

Professor Giorgio Barzilai, Marino Laziale, Rome, Italy. For contributions to the field of electromagnetic theory and to engineering education.

Mr Michel H Carpentier, Thomson CSF, 173 boulevard Haussmann, 75008 Paris, France. For pioneering work in the fields of radars and information processing.

Mr Uzi Galil, ELBIT Computers Ltd, Post Office Box 5390, Haifa, Israel. For the pioneering contribution to the establishment of a modern electronic industry in Israel.

Dr Adolf Goetzberger, Institut für Angewandte Festkörperphysik, Eckerstrasse 4, 78 Freiburg 1, West Germany. For contributions to the understanding of semiconductor/oxide interfaces.

Dr Dieter H Kind, Hochspannungsinstitut Der Technische Universität, Pockelstrasse 4, 33 Braunschweig, West Germany. For development of high-voltage measurement and test methods.

Dr Pietro P Lombardini, Via Rovereto 55, 10136 Torino, Italy. For contributors to radar astronomy, artificial ion cloud communication, and far infrared radiometry.

Professor Hans Marko, Technische Universität, Arcisstrasse 21, 8 Munich, West Germany. For contributions to digital communication transmission systems.

Professor George S Moschytz, Swiss Federal Institute of Technology, Institute für Fernmeldetechnik, Sternwartstr 7 ETH-Zentrum, 8092 Zurich, Switzerland. For contributions to the theory and the development of hybrid-integrated linear communication networks.

Mr Michel J Pouard, Electricité de France, Service Ermel, 1, avenue du General de Gaulle, 92140 Clamart, France. For contributions to the development and testing of high-voltage switchgear and to high-voltage and high-current testing.

Mr Harvey F Schwartz, The Haven, Foxendown Lane, Meopham, Kent, England. For contributions to electronic navigation systems.



Opening Session of the 10th Convention of Electrical and Electronics Engineers in Israel, October 10-13, 1977 organized by the Israel Section of IEEE. Co-sponsored by: TECHNION—Israel Institute of Technology; The Association of Engineers and Architects in Israel; Israel Section of IERE. (Left to right) J Baal-Schem, Chairman Israel Section; Folke Bolinder, Director Region 8; Peles, Secretary AEAI; Deputy Mayor of Tel-Aviv;

Horovitz, Minister of Industry and Trade; Prof Kazir, President of the State of Israel; M Shavit, former Chair of Israel Section and Chairman of the Convention; R Briskman; Prof Sivan, Dean of Faculty of Electrical Engineering at Technion (Haifa) and Chairman of Program Committee of the Convention; Paran, Chairman of the IERE Israel Section (co-sponsoring the Convention).



# Mathematics and Computers in Simulation

**Editor-in-Chief:** R. Vichnevetsky  
Rutgers University  
New Brunswick, NJ 08903 USA

## Aims and Scope:

The aim of the journal is to provide an international forum for the dissemination of up to date information in the field of the Computer Simulation of Systems. Published material ranges from short, concise research papers to more general tutorial articles.

Topics covered by the journal include mathematical tools in the foundations of Systems Modelling, in specific applications to science and engineering, and in the supporting analysis of numerical methods. They also include considerations about computer hardware for simulation (digital, analog and hybrid) and about special software and compilers. Finally, the journal publishes articles concerned with the general philosophy of systems simulation, and its impact on disciplinary and interdisciplinary research.

## Recent Papers:

- The Spectrum of Mathematical Modeling and Systems Simulation (by W. J. Karplus)
- Use of an Analogue Computer in the Application of Kalman Filter Methods of System Identification in the Presence of Noise (by A. P. Roberts and M. W. A. Smith)
- Application of Microprocessor Networks for the Solution of Diffusion Equation (by Yakup Paker)
- Mean Squared Accuracy of Numerical Approximations of Partial Differential Equations (by R. Vichnevetsky)
- La Methode des Elements Finis Application aux Equations de la Diffusion Linéaires et Non Linéaires (by M. Fremont)
- Cardiovascular Simulation Study of Infants with Transposition of the Great Arteries after Surgical Correction (by V. C. Rideout)
- Error Reduction Techniques in Digital Stochastic Computers (by A. J. Miller, A. W. Brown and P. Mars)

## Subscription Information:

Mathematics and Computers in Simulation is published in volumes of 4 issues; one volume in 1978

Library subscription price:  
US \$55.25/Dfl. 135.00 (postage included)

Personal subscriptions:  
US \$28.50/Dfl. 70.00 (postage included)

North-Holland Publishing Company,  
Attn: Mr. J. Dirkmaat,  
P.O. Box 211, Amsterdam, The Netherlands

## MATHEMATICS AND COMPUTERS IN SIMULATION

Please note my 1978 subscription as checked below:

- ☐ Individual subscription: US \$28.50/Dfl. 70.00
- ☐ Library subscription: US \$55.25/Dfl. 135.00
- ☐ Please send me a **FREE** specimen copy first
- ☐ Check enclosed ☐ Please bill me

Name: \_\_\_\_\_

Address: \_\_\_\_\_

0545

## Voting Statistics

The new incoming president received 28 161 votes and Mr Feerst 21 753 votes. The incoming Executive Vice President received 24 793 votes and Mr Bayless 24 644 votes so that your vote could have been one of those influencing this majority of only 149.

There were three Constitutional amendments on the ballot. Proposition One, which calls for submission of all board-nominated candidates for office by May 1 of each year and all petition candidates by June 1, instead of July and August as now specified, received 40 197 votes in favour, or 79 per cent, and 7852 votes opposed, or 16 per cent. It passed.

Proposition Two, which proposed changes in the Regional representation of the Board of Directors so that there will be seven geographical Regions, six of them in the United States, and the seventh comprising all other areas, did not carry. The votes were 21 337 in favour or 42 per cent, and 26 924 opposed, or 53 per cent.

Proposition Three, which provides for concurrence of any dues or assessment increase by a simple majority vote on a ballot to members, did not carry. The votes were 27 733 in favour, or 55 per cent, and 21 492 opposed, or 42 per cent.

That elections on matters as important as these produce only some 40 or 50 thousand votes is disappointing but enables members in Region 8, who traditionally should be more conscientious in exercising their voting rights than members elsewhere, to have a very significant influence on the future of the Institute.

## Dr A C Davies

The UKRI Section was delighted to learn that the Chairman of its Circuits and Systems Chapter, Dr A C Davies, had been elected to the Administrative Committee of the Circuits and Systems Society. This followed an election by the 9000 members in which five names were selected out of about ten on the ballot card. This is the second time that a UKRI member has been so elected (Bob Spence was a member a few years ago). There has been at least one member from Germany (Alfred Fettweis, Ruhr University) but the membership is normally all from North America.

## Authors' transfer of ownership

Authors, starting with 1978 issues of IEEE journals and conference publications, you will be required to formalize the transfer of ownership to the IEEE in writing in order to comply with the new US copyright law, which goes into effect January 1, 1978. Under the old law, ownership transfer was automatically implied when the author submitted his paper. The IEEE, in turn, will grant authors permission in writing to make liberal re-use of their material for their own purposes. The net effect will be to continue the long-time basic policy that the IEEE hold the copyright for its publications, except that authors or their institutions will not have to go through the formality of asking IEEE permission to re-use their own material as often as they do now. A standard copyright release form will soon be supplied to IEEE publications editors. If you have questions, contact Pat Penick at Headquarters.

## Copyright clearance

The Copyright Clearance Centre (CCC), which has just been incorporated, will receive the exclusive support of the Publications Board, as voted at the Pub Board's September meeting. Therefore, any organization wishing to do systematic copying of IEEE material should now do so via the CCC. Under the new copyright law, large-scale systematic copying of copyrighted material is forbidden without approval of the copyright holder. At the same time, it is important that systematic copying (i.e. by certain libraries) continue uninterrupted. So that these copiers will not have to make separate arrangements with each copyright holder, the CCC will provide a mechanism whereby participating copyright holders can grant the necessary approval. CCC will also collect from copiers a small copying fee to compensate copyright holders for the loss of subscription revenue that results from large-scale copying.

## IEEE Standard Dictionary

The second edition of the "IEEE Standard Dictionary of Electrical and Electronics Terms" was scheduled for publication before the end of 1977. Five years in the making, the 1977 edition will have over 20000 entries. This is 7000 more terms than were included in the 1972 edition, and the new edition will exceed the previous edition by nearly 200 pages. A new feature of the second edition is a listing of 10000 acronyms and sigla that are in current use in the areas of electrical and electronics science, business, industry, Government, and the military.

## Technical Activities Growth

Dr Robert M Saunders, President, asserted that the technical activities of the IEEE have displayed a steady growth in recent years and pointed out that this has been true, in particular, since 1972 when the Institute first embarked on its professional activities programmes in the US. "One of the great worries among IEEE officers, at that time, was that the professional programmes might be developed at the expense of technical activities," said Dr Saunders.



"All quantitative indicators available at this time are that the IEEE has been able to add to its professional dimension while at the same time enhancing its technical programmes."

Groups and Societies, the areas most directly concerned with technical affairs, have grown steadily since 1972 and in recent years have grown at a rate more than double that of the basic membership. In 1972 there were 156097 memberships enrolled in Groups and Societies; in 1976 the figure stood at 179558, an increase of 15 per cent over the same period the total IEEE membership increased from 160223 to 178616, a 7 per cent increase. The last time Institute dues were increased was in 1976 and the general membership suffered a small decline in numbers. "All of us expected that some of the members would opt out of Groups and Societies," said Dr Saunders, "but we were pleasantly surprised to note that Group/Society

membership gained from 174031 in 1975 to 179558 in 1976, or 3.2 per cent."

Another indicator of technical growth can be determined by studying the increase in Technical Publications. Since 1972 regular journal, conference record, standards and special publication pages have increased from 37220 to 42958 in 1976, a 15 per cent increase.

Taking note of some published accounts of criticism of professional programmes centred in the Institute which supposedly have been undertaken at the expense of technical programmes, Dr Saunders stated: "I urge these critics to take a good, hard look at the quantitative data and to be more objective in their appraisal. When they do, they will be forced to conclude—as I have—that development of the professional aspect of the Institute has occurred at the same time the Institute has been advancing its technical programmes beyond all expectations."

## MEETINGS IN REGION 8

### Technical Marketing

A major international conference on "Technical Marketing" will be held in London on March 13 and 14, 1978. Further information, including details of the programme, are available from State of the Art, John Carpenter House, John Carpenter Street, London, EC4Y 0AS, UK, Telephone 01-353 6791, Telex 264079.

Among the Conference sponsors are the UKRI Section, the American Institute of Aeronautics and Astronautics, and the Institution of Electrical Engineers.

The subject will be treated under three headings: Marketing to the UK; Marketing to the US; Marketing to Europe (including national governments and NATO). A keynote address will be given by Mr Marcel Morier, Chief Executive, EUROMISSILE.

### Radio Receivers and Associated Systems

This Conference, at Southampton University, July 11-13, 1978 is organized by The Institution of Electronic and Radio Engineers in association with The Institution of Electrical Engineers, The Institution of Electrical and Electronics Engineers and The Radio Society of Great Britain.

The aim of the Conference will be to provide a forum for recent advances in the field of radio receivers, etc, through the medium of original technical papers and discussions. The following list of headings provides a guide to the topics on which papers are particularly solicited, but it is not meant to be exclusive and the organizing committee is anxious to consider papers in other related fields, particularly those dealing with system topics, component advances which bear on receiver design, maintainability, reliability and operational costs.

Receivers and transceivers for specific fields of application: fixed stations; satellite systems; the mobile environment (land, air and maritime); pocket and personal receivers; selective calling; broadcasting; navigation; remote control and telemetry; radio astronomy. Digital techniques in receiver systems, and input/output devices. Receivers for more efficient spectrum utilization. Receiver specification, measurement and testing. Receiver components, e.g. new crystal oscillators and filters, front end filters, frequency synthesizers, microcircuits, microprocessors, s.a.w. devices. The coverage of the Conference is not intended to be limited to a particular part of the spectrum, and papers dealing with frequencies from v.l.f. to microwave may be submitted.

The Organizing Committee is under the Chairmanship of Professor W Gosling and includes representatives from industry, Government research establishments and Universities.

Further information and registration forms for the Conference are available from: Conference Secretariat (Radio Receivers and Associated Systems), Institution of Electronic and Radio Engineers, 8-9 Bedford Square, London WC1B 3RG.

### Fourth International Conference on Very Large Data Bases

In the last Newsletter, mention was made of an International Conference on Information Theory and System Theory in Digital Communication on September 18-20, 1978 in Berlin. Immediately prior to this conference, on September 13-15, will be one with the above title, also in Berlin.

The VLDB Conference is intended to identify areas of general interest for research, development, and applications of data base systems. Its objectives are to promote an understanding of current undertakings, to further

# EMI/EMC SEMINARS

## • GROUNDING AND SHIELDING

INNSBRUCK, AUSTRIA—MARCH 6-10, 1978; \$475  
STOCKHOLM, SWEDEN/HELSINKI, FINLAND—  
JUNE 6-8, 1978; \$515

This in-depth seminar covers the design and performance of shields for cables, circuits, compartments, boxes, equipment, sub-systems, systems and large enclosures. Using a quantitative approach, the course also establishes the rationale, methodology and procedures for grounding at all levels. Many examples are given. While grounding for control of EMI is emphasized, shock and lightning control are also covered.

### • INNSBRUCK, AUSTRIA SEMINAR

This seminar is presented in five half-day sessions. The schedule is patterned from the concept of the "Bildungsurlaub" or "Family School." Bring your family, attend the course in the morning, and enjoy skiing or relaxing in the afternoon and evening.

### • STOCKHOLM, SWEDEN-HELSINKI, FINLAND

The first day of this seminar is presented on board a tour boat en route between Stockholm, Sweden and Helsinki, Finland with the final two days taught at a hotel in Helsinki. The price of the seminar includes one-way passage plus the regular seminar fee.

### • LONDON, ENGLAND SEMINAR

This seminar is to be held the week preceding the Electromagnetic Compatibility Conference to be held at the University of Surrey, Surrey, England. The conference, sponsored by the IEEE and IERE, will present technical papers on topics dealing with EMC design.

### • TO REGISTER AND/OR RECEIVE MORE INFORMATION, CONTACT:

MRS. DELIA ANN WALKER, Don White Consultants, Inc.  
Dept. ADV-82, 656 Quince Orchard Road, Suite 410  
Gaithersburg, Maryland 20760 Phone (301) 840-0300, TLX 89-2766 DWCI-GARG

OR

### For Innsbruck Seminar:

Mr. Mac Van Schagen  
Simac Electronics, b.v.  
Veenstraat 20  
Veldhoven, Netherlands  
Phone 040.533725; TLX 51037

### For Stockholm Seminar:

Mr. I. Islander  
Scandia Metric AB  
Banvaktsvägen 20  
Solna 1, Sweden  
Phone 8.820410; TLX 10766

### For London Seminar:

Mr. Sid Bown  
REL Equipment & Components  
Croft House, Bancroft  
Hitchin-Herts, England  
Phone (0462) 57181; TLX 82431



the exchange of experience gained in the construction and use of data base systems, and to serve as a forum for future research and development. This year the conference will focus, but not be limited to, the following areas: data base design, data base software engineering, distributed data base systems, and the impact of new technologies. Intensive debates among practitioners and researchers will be organized. Thus, practically oriented survey and tutorial papers are especially welcome. Complete papers are due March 1, 1978 and should be sent to the Programme Committee Chairman, Professor J A Bubenko, Chalmers University of Technology, Fack, S-402 20, Goteborg 5, Sweden. Authors will be notified of acceptance by May 18, 1978. Some selected papers will be considered for publication in ACM Transactions on Data Base Systems. For further information, please contact the General Conference Chairman, Herbert Weber, Hahn-Meitner Institut, 1 Berlin 39, Postfach 390128.

#### Microprocessors in Automation and Communications

This conference, organized by The Institution of Electronic and Radio Engineers in association with The Institution of Electrical Engineers and The Institute of Electrical and Electronics Engineers, is to be held at the University of Kent at Canterbury, September 19-22, 1978.

The aim of the conference is to provide a forum for recent advances in the application of this technology, through the medium of original technical papers and debates. The following list outlines the scope of the conference and shows the topics on which papers are solicited. The list is meant to be a guide, and the organizing committee is prepared to consider papers in other areas which are appropriate to the general theme at the conference.

Industrial automation: on-line control; process monitoring; distributed systems. Telecommunications systems: radio systems; line systems; telemetry/remote control; intelligent terminals; packet switching systems. Interfaces: machine/machine and man/machine systems; standards.

Commercial applications: office machinery; financial; stock control; point of sale. Social, psychological and financial applications: cost effectiveness of microprocessors in systems; social change; psychological acceptance. Consumer and entertainment applications. Transport systems: land, sea and aerospace. Security applications: security of property and identification system; cryptographic and authentication systems.

Medical equipment. Military systems. Educational and instructional uses: teaching machines, etc; prototyping aids; information dissemination. Software: languages; cross assemblers; presentation. System simulation design and development aids. Energy conservation. Systems reliability and maintenance. New developments.

Further information and registration forms for the conference are available from: Conference Secretariat, Institution of Electronic and Radio Engineers, 99 Gower Street, London WC1E 6AZ.

#### Seventh International Broadcasting Convention

This Convention is sponsored by the Electronic Engineering Association, Institution of Electrical Engineers, Institute of Electrical and Electronics Engineers, Institution of Electronic and Radio Engineers, Royal Television Society and the Society of Motion Picture and Television Engineers. It will be held at the new Wembley Conference Centre in London, September 25-29, 1978.

The IBC Exhibition ranks as one of the most important market places in the world for an extensive range of the latest professional broadcasting equipment and services. Leading world manufacturers will display and demonstrate their latest equipment.

Further information from: The Secretariat, International Broadcasting Convention, IEE, Savoy Place, London, WC2R 0BL.

#### Design, Application and Maintenance of Large Industrial Drives

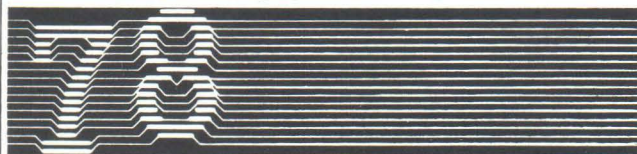
This International Conference is organized by The Institution of Electrical Engineers in association with the Copper Development Association, the Institute of Electrical and Electronics Engineers (UKRI Section), the Institute of Physics and the Institution of Production Engineers. It will be held in London, November 8-10, 1978.

The Conference is intended to provide a forum for the discussion of all aspects affecting large AC industrial drives and equivalent aspects affecting DC drives, from conception to sustained operation. It will cover both the requirements of supply, performance, protection and maintenance and also the impact of environmental, mechanical and process generated factors. The Conference is not intended to deal extensively with variable speed aspects of drives as such, although other aspects will be covered. The main aspects to be covered in the Conference Programme are:

(i) Design: Enclosure; environmental factors; hazardous atmospheres (flameproof, etc). Cryogenics (review of progress). High temperature materials. Intrinsic loading (and commutation limits). Testing. Terminations. Quality control. Standardization. National and international standards and specifications.

## Communications 78

Communications Equipment and Systems



National Exhibition Centre, Birmingham, England.  
Tuesday 4-Friday 7 April 1978

## You are invited to Communications 78

Communications 78 is the world's leading exposition for selling communications equipment and systems, providing an international focal point for the latest technological advances in the fields of PTT telecommunications, fixed and mobile radio communications and defence communications.

## Active backing

Trebled in size since the last event in 1976, Communications 78 is being supported by more than 200 international exhibitors and has the active backing of the International Telecommunication Union (ITU), representing the interests of 153 governments; the British government through the Ministry of Defence, the Home Office and the British Overseas Trade Board; Post Office Telecommunications; the Electronic Engineering Association (EEA) and the Telecommunication Engineering and Manufacturing Association (TEMA).

## Integral conference

The integral conference is being organised by The Institution of Electrical Engineers (IEE) in association with the Institution of Electronic and Radio Engineers (IERE), the UKRI section of the Institute of Electrical and Electronics Engineers (IEEE) and the IEEE Communications Society.

Communications 78 is being held for the first time at the National Exhibition Centre, Birmingham—the UK's premier exhibition complex—from Tuesday 4 April to Friday 7 April 1978. The exhibition will be open daily from 09.30 - 18.00 hrs. (17.00 hrs. on last day).

Admission to the exhibition is free to bona fide users and specifiers of communications equipment and systems. The coupon below may be presented as an admission ticket to Communications 78 or, if you require more detailed information, please complete and send it to: Tony Davies Communications, c/o Industrial and Trade Fairs Ltd., Radcliffe House, Blenheim Court, Solihull, West Midlands B91 2BG, England.

Please send me details of

the exposition ☐

the conference ☐

Name

Position

Company

Address





(ii) Applications: (a) industrial applications; steel; petrochemical and gas; mining; cement; test plant (wind tunnels, tyre testing, etc); pumping (water, sewerage, etc); marine propulsion; board and pulp mills. (b) Application Factors: installation and commissioning; vibration and torsional oscillation; power systems and protection requirements; environmental.

(iii) Maintenance: An emphasis on diagnostic techniques, e.g. insulation testing; bearing deterioration. Documentation: very succinct and well illustrated reviews. Preventive maintenance. Papers also invited on "off-shore" maintenance problems.

(iv) Health and safety aspects.

Those intending to offer a contribution should submit a synopsis of 500 words to the Conference Department on or before February, 1978. The synopsis should include the main points of the paper and, where possible, indicate where the emphasis will be placed. The authors whose synopses are selected for development will be requested to provide a typescript of not more than 3200 words for assessment by June 12, 1978.

The Conference will be held at The Royal Institute of British Architects, London W1. Further information from: IEE Conference Department, Savoy Place, London WC2R 0BL.

## NEWS OF THE SECTIONS

### GERMANY SECTION

#### Electromatic Compatibility Chapter for Region 8

Consideration is being given to the establishment of a G-EMC Chapter in Region 8, its purpose being the enhancement of communication among EMC specialists residing within Region 8. It is proposed to hold Chapter Meetings twice a year, if possible, and in conjunction with European EMC Symposia or EMC related conferences that are sponsored by the IEEE. A circular letter will be mailed to all G-EMC Members residing in Region 8. For further information write to Dieter B Hohmann, Preusserstrasse 1a, 2000 Hamburg 52, West Germany.

### UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

At the last meeting of the Executive Committee, the Director of Region 8 gave an interesting account of his attendance at IEEE committee and board meetings in the USA.

Dr Tony Davies reported the success of the meetings, courses and conferences associated with the Circuits and Systems Chapter and he was congratulated on his election reported in the Institute News.

The increasing importance of continuing education was recognized by a Committee being set up to be responsible for activities in this field and Mr M A Giddings (Communications Studies and Planning Ltd, 56/60 Hallam Street, London W1N 5LH, Tel. 01-637 9757/8) was appointed as Chairman and, ex officio, invited to join the Section Committee.

The Annual General Meeting was fixed for Tuesday, February 21, 1978, at the IEE, commencing at 6 pm (tea and biscuits 5.30 pm). Following this meeting, Dr G H Byford will give a talk on electricity in aviation medicine which will range from the electronics instruments used to the installation consuming several megawatts which simulates the effects of gravity. This in turn will be followed by light refreshments at about 8 pm. Please return the form at the bottom of the Agenda for the meeting included with this Newsletter.

#### Student Branch from Finland visits London

Thirty-one members of the IEEE Student Branch of Oulu University, Finland, visited London from September 6-14 to become more familiar with the electronics industry and the education of electronic engineers in Britain. Visits were arranged to GEC, Mullards, STC, the BBC and the Post Office. The students also visited King's College, London.

The Oulu Student Branch is keen to arrange a visit by IEEE students from the UK to Finland as well as summer exchange employment for IEEE student members in Finland on a reciprocal basis. Anyone able to offer a job to a Finnish electronics student should contact Professor C W Turner at King's College, Strand, WC2 (Tel. 01-836 5454, ext 2438) as soon as possible.

#### Professional Communication Chapter

As a result of the response to the questionnaire circulated with the October Newsletter, it has been decided to hold a weekend Conference from Friday evening, March 3 to Sunday lunch, March 5 at the Beauport Park Hotel, Battle, East Sussex. The purpose of the Conference is to give participants instruction and experience, under expert guidance, in the art of Professional Communication as well as to provide an opportunity for informal discussion between Members interested in the communication

field. Ladies are invited and will be welcome to take part in the proceedings. The programme is as follows:

Friday evening Dinner followed by a talk on Communications in Nature by Professor Eric Laithwaite.

Saturday morning Seminar arranged by Dr Sinclair Goodlad of Imperial College on "The Spoken Word".

Saturday afternoon Lunch. Afternoon free.

Saturday evening Dinner followed by a relevant "Game".

Sunday morning Seminar arranged by Dr Goodlad on "The Written Word". Close of Conference and lunch.

The cost will be £29 per person including hotel, meals and morning coffee. Fuller details and an Application Form have been sent to those Members who, on the questionnaire, showed interest in the Conference. Further copies may be obtained from the Chapter Chairman, Professor EO Taylor, Clare Cottage, Pett Road, Guestling, East Sussex, TN35 4EX (Tel. Pett 3005).

The Chairman and Secretary of the Chapter were very pleased to meet Dr Emily Schlesinger, President of the Group in the US, on her recent visit to this country. The opportunity was taken of discussing matters of mutual interest and it is hoped to maintain a closer liaison between our Chapter and the Group in the USA.

The lecture by Robert Spence on "Computer-Aided Design—The Man-Machine Interface" was attended by about 35 members. Mr Spence's demonstration of Minnie, a computer that draws, modifies and indicates hazardous parasitics in a circuit entirely at the wish of the designer, was most impressive and led to a very useful discussion.



A C Davies (The City University), CAS Society President, L O Chua (University of California, Berkeley) and D A Bell (University of Hull) during an interval at the Computer-Aided Design of Electronic and Microwave Circuits and Systems Conference. The Proceedings of this Conference comprise 191 pages, contain the full texts of the 34 papers presented and are available from Conference Secretariat, Department of Electronic Engineering, The University, Hull, England, HU6 7RX, price £9.50 (plus £1 for posting in UK and £2.50 for overseas surface mail; overseas air mail of £5.50).

### ADVERTISING AND INSERTS

Enquiries to County Secretarial Services, P.O. Box 7, Guildford, Surrey, England GU2 5HH. Telephone 0483 77777. Telex 264045 ERLHD G. Cable Address COSEC GUILDFORD. Delivery address 8 The Flower Walk, Guildford. Deadline dates in box on front page.

#### ADVERTISING RATES

Display— \$500 per full page. \$300 per ½ page. \$150 per ¼ page. Special section for Appointments/Professional Services/Publications— \$75 per ⅓ page to include setting.

#### INSERT RATES

For full Regional distribution to approximately 8,250 members in Europe, Middle East and North Africa, size A5 or folded to A5 (148mm x 210mm), weight 10gms \$550, 20gms \$650, 30gms \$700. Lower rates for distribution to one country only or to a group of countries. Additional charge if collation required. Recommended method of delivery to County Secretarial Services is by air mail parcel post (check local postal regulations for maximum weight per parcel) or by air freight with notification of airline and airway bill number.