



NEXT ISSUE - FEBRUARY COPY DEADLINE - JANUARY 7

## THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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> No. 44 NOVEMBER 1978

Regional Director: Prof. E. Folke Bolinder

Chalmers University of Technology, Gothenburg, Sweden

## REPORT FROM THE REGIONAL DIRECTOR



On June 22, 1978 I attended a EUROCON '80 Conference Steering Committee Meeting at Stuttgart, West Germany. Professor W. E. Proebster, IBM, Stuttgart was elected Chairman. Mr C. Reginald Russell, Senior Past Region 8 Director, accepted the job as Vice-Chairman, and he also volunteered to be Secretary of the Committee. The Chairman of the Technical Program Committee is Professor W. Kaiser, University of Stuttgart, and Vice-Chairman is Professor F. L. Stumpers, Junior Past Region 8 Director. EUROCON '80 will take place on March 24-28, 1980 on the campus

of the University of Stuttgart. The theme of the Conference is "From Electronics to Microelectronics: Trends and Applications"

On July 28 I participated in a Nominations and Admissions Meeting at the IEEE Headquarters in New York.

During August 24-29 I took part in meetings with the Long Range Planning Committee (LRPC), the Regional Activities Board (RAB), and the Board of Directors (two days). The LRPC meeting was very interesting. Mr D. S. Brereton, Director of Division II presented a plan for the reorganization of the Board of Directors. The plan was thoroughly discussed. I introduced the idea of having a Vice-President of International Affairs on the Executive Committee and the Board of Directors. The Chairman of LRPC, Professor R. M. Saunders appointed a Task Force consisting of E. F. Bolinder (Chairman), R. H. Tanner (Past President), and C. Rivera-Abrams (Region 9 Director) to report on this

One of the main issues during the RAB Meeting was the regional rebates. During 1978 Region 8 obtained \$17,200 and through the generosity of Regions 1-7 an extra sum of \$2,200. The rebate for 1979 is \$19.200 on a stationary basis. In order to save money the RAB Treasurer suggested an extra cut of the rebates of sections with more than 2000 members. We do not have any such section (yet). Mr D. M. Hinton, Consultant to RAB on International Relations, talked about the disadvantages of having blocked accounts. There was no solution of the French problem, and there was no response from Russia on a new section. I was told by RAB to submit a "white paper" to LRPC on a new Vice-President of International Affairs. A new program for recognizing outstanding counsellors has been proposed.

During the Board of Directors meeting the participants were divided into two groups which were informed by Institute experts on all aspects of the 1979 Budget. Afterwards everyone got a form to fill in about changes

wanted in the recommended budget.

Finally, on September 22 the Nominations and Appointments Committee convened by telephone. Eight members and Emily Sirjane, Staff Secretary, participated. Professor Saunders from California was the Chairman. Quite an interesting experience to be talking to people spread out all over the United States. This opens up some interesting possibilities for committee meetings in the future.

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In a few months my time as Regional Director is at an end. The Editor, Bill Devenish, has asked me to give an overview of my period as Director. I am glad to have been given this opportunity.

First of all I have spent some time in trying to keep IEEE a transnational institute known basically for its technical excellence. The IEEE United States Activities Board, which can be said to represent an American national society, has during my time been working hard to get the Board of Directors to make some important decisions on the code of ethics, implementation of the code, registration, wage busting, etc. In order to get support these matters have been turned over to the Regional Activities Board, the Technical Activities Board, the Educational Activities Board, etc, where the issues have been thoroughly discussed. Thus the transnational problems have been pushed aside. A good example is the RAB meeting at Vancouver, Canada in August 1978 when the transnational issues had to be rushed through with great speed at the end of the meeting because time was running out. This is the reason why I have pushed the idea of having a Vice-President of International Affairs on the Executive Committee and the Board of Directors. The other non-USAnian Directors of Regions 7, 9 and 10 are backing me up on this idea; the Director of Region 9 (South America) even wants to split RAB into two parts, one part going to USAB and the other being a new Board of International Activities. This is an interesting thought that should be discussed thoroughly.

In connection with the transnational character of the Institute I would like to point out the importance of the presidential elections. All votes are very valuable because only about one-third of the membership votes. I was shocked in 1977 when I realized that many Region 8 members had voted for the presidential candidate who had promised to convert IEEE into AIEEE, "A" for "American". Some of my friends have later explained to me that they thought that the Candidate proposed by the Board of Directors intended to make IEEE an American national society. To avoid such a misunderstanding the election information was published already in the August issue of the Region 8 Newsletter this

year. I hope it will work!

Another issue I spent some time on is EUROCON. I got a very slow start. I participated in the organization of EUROCON '71 at Lausanne and EUROCON '74 in Amsterdam but I had nothing to do with EUROCON 777 at Venice. In order to inform myself I went uninvited to a EUROCON '77 meeting at Venice in May 1977 which had as an amusing effect that some participants thought that I was President of IEEE. EUROCON '77 turned out to be a success, and it showed again that EUREL, the Convention of National Societies of Electrical Engineers of Western Europe, and IEEE Region 8 can work together in great harmony. All signs indicate that the same pleasant atmosphere will exist in connection with EUROCON '80. However, in connection with EUROCON IEEE Region 8 must find a solution to the intricate problem concerning the sale of the Conference Proceedings.

This brings me to the third issue of this overview: finances. Regions, 8, 9 and 10 outside the North American Continent are the poor members of the IEEE family. Regions 1-6 inside the United States, and also Region 7 Canada in some respects, are the wealthy members of the family. Big conferences with impressive exhibitions inside the United States give the Regions there a lot of money, and the American companies usually pay the expenses for employees working for IEEE. The gain Region 8 gets out of EUROCON is rather small; at the beginning EUREL our partner did not want any gain at all for EUROCON. Our part of the gain must be used to cover the expenses of the Region 8 delegates going to EUROCON committee meetings and to start the new EUROCON. Thus we have a very weak economy in Region 8.

When I started out in this job Senior Past Director Reg Russell urged me to look for the "the pot of gold". Sorry to say, I have not found it. Often when I talk to people at Headquarters in New York about

DEADLINES	PUBLISHED QUARTERLY	FEB	MAY	AUG	NOV
	News to Editor	Jan 7	April 7	July 7	Oct 7
	Advertisements to County Secretarial Services	Jan 15	April 15	July 15	Oct 15
	Delivery inserts to County Secretarial Services	Jan 22	April 22	July 22	Oct 22

economical problems I am told "try to find a way to make some money". This is something for my successors to think about.

The regional rebate which pays for the Region 8 Committee Meetings, the Region 8 newsletter, our educational activities, the membership drive, etc, is calculated by means of the following formula called the "modernized Gibson formula":

REBATE = \$100 x (Number of sections + branches)

+ \$0.10 x (Number of members)

+ 4 x (Geo center air fare)

In spite of some efforts no new sections have started during my time. Turkey, Saudi-Arabia, Austria, Kuwait, Portugal and Russia would, for example, be able to start sections. The membership is increasing at a very steady rate, 5-6 per cent a year. We have now about 8500 members. Since the start of Region 8 sixteen years ago we have had two Region 8 Committee Meetings every year. I think that it is very important that this tradition is maintained. In our Region with Sections that have diverse cultures, religions, languages, politics, etc, it is important that the Region and Section Officers meet twice a year.

The Region 8 Newsletter recently celebrated its tenth anniversary. It is

rather expensive but it serves a very important function in Region 8 in being a connecting link between Members spread out in a large area. The cost of the Newsletter could be decreased if the Members would help in getting more advertisements and inserts.

I am sorry that lack of time has prevented me from spending more time on the most important asset of Region 8: the students. However, I have been lucky in having had very good helpers. The Student Paper Contest is important and more contestants should be induced to take part. In summarizing, the job has been tough but very interesting. There have been difficulties in combining the IEEE job with my professorship and I am grateful to the President of Chalmers University of Technology, Professor S. Olving, for encouragement and help. I would like to take this opportunity in thanking all people, both IEEE people and non-IEEE people, who have helped in making my job as Regional Director a very rewarding one. I wish the next Director all the best and lots of success during his two year period.

Gothenburg, Sweden, October 6, 1978 E. FOLKE BOLINDER

## **INSTITUTE NEWS**

#### Membership

Total Institute membership is currently 3.74% above last year and, as Region 8 has achieved a corresponding figure of 7.5%, our contribution had been extremely important. In fact, only Region 10, with a slightly smaller total membership, has managed to obtain a higher percentage increase (11.5%). Dick C. Poortvliet, as our representative on the RAB Membership Development Committee, hopes that this performance will be continued.

#### **Technical Activities Board**

Two sub-committees of the Joint Telecommunications Advisory Committee have recently submitted reports on tolerances for spurious emissions and frequency tolerances to the FCC for input at the 1979 World Administrative Radio Conference. Copies of the reports are available at Headquarters.

The Technical Forecasting and Assessment Committee is now being reorganized and is seeking new members who have an interest in

technology forecasting and assessment.

The United States National Academy of Science and the National Academy of Engineering are sponsoring an International Materials Congress in Washington, DC, March 26-29, 1979. The theme of the Congress will be "The Role of Materials Science and Technology in relation to World Energy Needs". The Congress will focus on the new challenges and opportunities for materials science and technology to help both advanced nations and less developed countries to cope with the specific aspects of the problems which are most important to them as energy producers/consumers/importers/exporters of materials.

The Congress will provide a forum for the views of participants from around the world on what advances in materials development and application would be most helpful to their needs and it will generate a better understanding of the advances already made. It will also address the question of what institutional arrangements or national and international policies affecting the interface of materials and energy are, or could be, most useful.

The Congress will begin with a one-day plenary session to clarify the general nature of the relationships between materials and energy in the world context and identify major new problems and opportunities. The plenary session will be followed by two days of concurrent workshops. The workshop topics presently planned are:

- Materials science and technology for more energy efficient mining,

processing and recycling;

Materials science and technology for more energy efficient buildings;

Materials science and technology for more energy efficient many.

Materials science and technology for more energy efficient manufacturing;

 Materials science and technology for new energy sources and more efficient energy conversion;

 Materials science and technology for more energy efficient transportation;

 Science and technology for energy efficient materials from renewable resources;

 The economics of materials production and use under conditions of rising energy costs;

 $-\mbox{\it Materials}$  education for the interrelated energy and materials world;

 Institutional and organizational patterns and strategies for interrelation of materials and energy research and development, technology, production, co-ordination and planning.

For additional details, please contact: Richard S. Claassen, Programme Chairman, International Materials Congress, c/o National Research Council, Council on Socio-technical Systems, 2101 Constitution Avenue NW, Washington, DC 20418, USA.

#### **US Member Opinion Poll**

A detailed analysis of the US Member Opinion Survey, conducted by the Survey Task Force of the United States Activities Board of the IEEE, has just been published and is now available from the IEEE Service Centre in Piscataway, New Jersey. The volume is listed as No. UHO133-9 and is \$5 for members and \$10 for non-members.

The tabulations indicate how IEEE leaders feel about controversial issues as compared with the general membership, what engineering managers or power engineering specialists think about regularly scheduled overtime, how both younger engineers and experienced practitioners desire project assignment rotation to remain versatile and valuable.

One unexpected response was the wish, expressed by nearly every sub-group, urging employers to encourage their employees to attend

local IEEE meetings.

Answers to 53 questions were related to member characteristics such as geography, primary technical specialty, age, degree, years of volunteer service to the Institute, occupational category, income, registration status, etc. There is a profile highlight of Institute leaders, those who served the longest period of time.

## **MEETINGS IN REGION 8**

#### International Symposium on Flow Control in Computer Networks

This international symposium, specifically devoted to flow control in computer networks, provides an exceptional opportunity for in-depth discussion of the topic. The goals of the symposium are clarification of all aspects of the flow control problem and presentation of the state of the art in this field. It will be held in Paris, France, February 12-14, 1979. The following topics restricted to the scope of flow control problems will be covered: Definitions and concepts; Resource allocation and deadlock prevention; Interactions across architecture layers; Influence of traffic classes; Congestion control; Routing; Critical parameters in control mechanisms; Impact of long communication delays (eg satellites); Internetworking; Performance measurements and experience; Simulation and modelling.

Further information from: IRIA, Service des Relations Extérieures, Domaine de Voluceau, BP 105, 78150 Le Chesnay, France.

Video Display and Technologies for New Forms of Communication Section 6 of the Nachrichtentechnische Gesellschaft (NTG) in the VDE is organizing, in co-ordination with the German Section of IEEE, a conference on the above subject in Berlin March 13-15, 1979. The aim of this conference is to present, from the viewpoint of the user, future systems of communication in both the individual and institutional spheres. To this end, consideration is to be devoted both to new developments and emergent trends and to critical and unsolved problems. Special importance will be attached to the relations between communication and information processing.

It is proposed to consider the following items: Man-machine interface; User guidance; High-resolution video displays; Hard copy machines; Intelligent display terminals; Existing and planned systems.

## Conference on Very Large Scale Integrated Circuits

This Conference in Baden-Baden, Germany, from April 3-5, 1979 was announced in the April Newsletter.

The conference's intentions are:

- to present the pertinent state of R and D in integrated circuits' techniques on their way to VLSI;
- to stimulate the dialogue between manufacturers and users on realization of present system concepts in highly integrated form;
- to propose new system solutions which will become feasible as a result of VLSI.

It is particularly addressing itself to electrical engineers and scientists from university and research laboratories, semi-conductor industry, equipment and system houses, and other users.

The programme will consist of general reviews, specific invited papers as well as contributed papers on the different aspects of VLSI:

- 1. VLSI technology with respect to materials, equipment, tools, processing; tolerances, limits and economics.
- 2. VLSI circuit-techniques with respect to minimum area components, tolerances, specific circuit solutions, cellular layout approaches, advanced design methods, partitioning, testability, etc.

3. Modelling and simulation for different levels of function complexity, design-error detection and design centering.

- 4. Digital functions as microprocessors, microcomputers and other programmable circuits, including memories.
- 5. Highly complex analogue and analogue-digital mixed functions. I/O-circuits including sensing and control elements.

6. Specific user aspects-

- (a) Adaption of existing system concepts to VLSI solutions (software and hardware)
- (b) VLSI approaches toward new applications like adaptive systems, picture storage and coding, voice processing, etc.

Conference languages: English, German.

To receive further information, including an official Call for Papers, please contact the Programme Committee, c/o Dr Hugo Rüchardt, Siemens AG, WIS TE Programme, Balanstrasse 73, 8000 Munich 80, West Germany.

#### Conference on TV Measurement

This conference, organized by the Institution of Electronic and Radio Engineers in association with the Institution of Electrical Engineers, the Institute of Electrical and Electronics Engineers, and the Society of Motion Picture and Television Engineers, is to be held at the Commonwealth Institute, London W8, May 21-23, 1979.

Further information from: Conference Secretariat, Institution of Electronic and Radio Engineers, 99 Gower Street, London WC1E 6AZ.

## Ninth International Symposium on Multiple-Valued Logic

The Ninth International Symposium on Multiple-Valued Logic, cosponsored by the University of Bath, Virginia Polytechnic Institute and State University, the IEEE Computer Society, and the Association for Computing Machinery, will be held at Bath, England, May 29-31, 1979. Previously unpublished papers are invited in the following (and related) areas:

- 1. Applications of multiple-valued logic in digital systems, image processing, pattern and speech recognition, artificial intelligence, medical diagnosis:
- 2. Circuit implementations;
- 3. Automated logic design; I.s.i. and v.l.s.i. implications;
- 4. Design considerations and feasibility of design studies;
- 5. Programming logic and man-computer systems;
- 6. Algebraic, philosophic, and other formal aspects;
- 7. Relationships between multiple-valued logics and algebras;

8. Stochastic and fuzzy logic; variable-valued systems.

Authors should submit three copies of each paper. Papers should be 10-20 double-spaced, typewritten pages, including figures. Each paper should have a 50-100 word abstract. Papers should be submitted by December 1, 1978 to: Dr John Loader, Brighton Polytechnic, Moulsecoomb, Brighton BN2 4GJ, England.

Photo-ready copies of the final papers are due March 1, 1979.

There will be oral presentations of recent results. Title and abstract for such presentations should be submitted by April 15, 1979.

For other information about the Symposium, contact Dr Stanley Hurst, Department of Electrical Engineering, University of Bath, BA2 7AY, England.

Note: The dates of this Conference coincide with the 30th Bath International Music Festival, and the Festival of Flowers. It is therefore hoped that a varied social programme may be arranged to coincide with the Symposium. Hotel accommodation, however, will be at a premium, and very early Symposium booking is recommended in order to be sure of accommodation in Bath.

## Fourth International Symposium on the Mathematical Theory of Networks and Systems

In the last Newsletter the announcement regarding this Symposium gave the date as June 18-22, 1979. To avoid conflicting with the date for the NATO Summer School at Harvard June 15-30, 1979 the Symposium in Delft will now be held July 3-6, 1979.

## International Symposium on Information Theory

The 1979 IEEE International Symposium on Information Theory will be held at Grignano, Italy, June 25-29, 1979. Papers which present new results in information theory and related fields are solicited. Areas to be covered include: Communications systems; Computational complexity; Computer-communication networks; Cryptography; Data compression; Detection and estimation; Error-control coding; Pattern recognition; Stochastic processes; and Shannon theory.

As in the past, there will be two kinds of contributed papers: the "long" papers of thirty minutes duration and the "short" papers of twenty minutes duration. The "long" papers will be accepted on the basis of a full manuscript. The "short" papers will be accepted on the basis of a 500-word summary. Both the complete manuscripts and the summaries should be submitted together with an abstract suitable for inclusion in the Symposium programme. Manuscripts submitted for consideration as "long" papers that cannot be accommodated in the programme in this category also will be considered in the "short" paper category unless the author instructs otherwise. Authors should indicate the area of their paper for ease in processing.

Deadline for papers is December 1, 1978.

Further information from: Prof Lee D. Davisson, Electrical Engineering Department, University of Maryland, College Park, Maryland 20742,

## International Conference on Video and Data Recording

The aim of the Conference, organized by IERE in association with IEE, the Institute of Physics, the Royal Television Society, the Society of Motion Picture and Television Engineers, the IEEE and the Audio Engineering Society, is to promote a forum where recent advances can be considered through the media of original technical papers and discussion. It will be held July 24-27, 1979 in Southampton, England. Papers are invited for the Conference and the following headings are provided as a guide to topics: Theory of recording processes; Magnetic and other recording media techniques and hardware; Coding, modulation and signal processing; Digital audio recording; Information and archive storage and retrieval; New recording techniques, applications and systems.

Summaries should have been submitted to the conference secretariat by October 27, 1978. Notification to authors of provisional acceptance of summaries during the month of November 1978. Final papers of about 2,500 to 5,000 words required by March 16, 1979.

Further information from the Conference Registrar: IERE, 99 Gower Street, London WC1E 6AZ, England.

#### Second International Conference on Progress in Cables and Overhead Lines for 220 kV and Above

Organized by the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section) and the Institute of Mathematics and its Applications, this conference is to be held in London, September 4-6,

The purpose of the conference is to survey the field of EHV cables and overhead lines and their associated equipment for AC and DC systems, to obtain reports on operating experience, and to indicate possible future developments in conventional and novel methods of power transmission. Emphasis in all contributions should be on new developments and procedures and the economic result of technical policy and preference should be discussed.

The scope of the conference has been divided into the following categories in which subject matter has been indicated as a guide only. 1. Design and Performance of AC and DC Overhead Lines: Conductors; Conductor accessories; Aerodynamic phenomena and protective devices (oscillations, vibrations, dampers, spacers, spacer-dampers); Radio interference, acoustic noise and corona; Insulators; Towers and foundations; Construction, maintenance and operation.

2. Design and Performance of AC and DC Cable Systems: Materials, design and manufacture of submarine and land cables and accessories; Characteristics, rating and performance; Installation, operation and

3. Insulation Levels: Switching surges; Oscillatory overvoltages on DC systems; Induced voltage problems; Transient voltages in cable sheaths. The Organizing Committee invited offers of contributions for consideration for inclusion in the programme on or before October 30, 1978. Authors will be requested to provide a typescript by April 6, 1979. Further information from: IEE Conference Department, Savoy Place, London WC2R 0BL, England.

## Fourth International Symposium on Network Theory

Organized by the Yugoslav Committee for Electronics and Automation (ETAN) and The Faculty of Electrical Engineering, University of Ljubljana, Yugoslavia, in co-operation with IEEE Circuits and Systems Society.

This is the fourth international symposium on network theory organized by ETAN. It will be held in Bled, Yugoslavia, September 5-8, 1979. The symposium will be devoted to circuit theory and its extensions to system

The object of the symposium is to provide a forum for the presentation of research work on circuit theory together with the applications of circuit theory in other disciplines. Areas to be covered include: General circuit theory; General analysis and synthesis methods; Network topology; Computer-aided circuit design; Non-linear network analysis and design; Sensitivity; Distributed networks; Digital signal processing; Large-scale networks; Filter theory and design; Digital filters; Power networks; System modelling and models in design.

Round-table discussions will be arranged if there is sufficient demand for such

Deadline for submission of papers: January 31, 1979. Further information from: Yugoslav Committee for Electronics and Automation (ETAN), Network Theory Symposium, PO Box 356, 11001 Beograd, Yugoslavia.

## Second International Conference on Automotive Electronics

The conference, organized by the Institution of Electrical Engineers in association with the Associazione Elettrotecnica ed Elettronica Italiana, the IEEE Vehicular Technology Society, the Institute of Mathematics and its Applications, the Institute of Petroleum, the Institution of Electronic and Radio Engineers, the Institution of Mechanical Engineers and the Society of Automotive Engineers Inc., will be held in London, 29 October-2 November, 1979.

It will review the progress made since the 1976 Conference in the design, development and use of electronic components and systems in and related to passenger and commercial road vehicles; with particular emphasis on recent advances in engine management systems related to pollution control and fuel economy, and on systems which improve

driver information and safety.

The conference topics will include the following: Environmental requirements for automotive electronics; Reliability experience with automotive electronics; Transducers and actuators for use with vehicle electronic systems; Electronic components including microprocessors and minicomputers for use with vehicle electronic systems; Engine management systems; Anti-lock braking; Safety related systems; Speed control and warning systems; Driver diagnostic systems; Dealer diagnostic systems; Analogue and digital driver instrumentation and displays; Automatic transmission control; Active suspension control; Headlamp and lighting control; Road and weather information systems; Route guidance; Vehicle road metering and flow control systems including the provision of in-vehicle information; Electronic switching and minor function controls; Multiplex vehicle wiring systems; Vehicle mounted radar systems; Vehicle guidance and location systems, including automatic driving controls; and Related research, development and test instrumentation.

Contributions are invited for consideration for inclusion in the programme. Those intending to offer a contribution are asked to submit a synopsis of approximately 250 words before February 2, 1979. The authors whose synposes are selected for development into full

contributions for further consideration will be requested to provide a typescript of not more than 3,200 words of text, plus one page of illustrations, for assessment by June 4, 1979.

Further information from: Conference Department, IEE, Savoy Place, London WC2R 0BL, England.

#### Developments in Design and Performance of EHV Switching Equipment

The Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section) and the Institute of Mathematics and its Applications has organized this International Conference in London, November 26-28,

The purpose of the Conference is to review the progress made in the design and performance of EHV (above 150 kV) switching equipment during recent years and to explore likely future developments.

It is intended that the Conference will cover all aspects of the development, manufacture and testing of EHV circuit breakers, other switching devices and ancillary equipment for use on transmission networks throughout the world. It will take into account the application of EHV switching devices and the need to observe environmental requirements. The main aspects to be covered in the Conference programme are: Ratings and performance requirements; Effects of changing performance requirements on the design of circuit breakers and other switching devices; Progress in arc interruption, insulation technology and test methods; and Developments in ancillary equipment. Offers of contributions are invited for consideration for inclusion in the programme. Papers should, as far as possible, concentrate on one main aspect of the programme, rather than cover the whole field, and those intending to offer a contribution should submit a synopsis of 250 words before December 1, 1978.

The authors whose synopses are selected for development will be requested to provide a typescript of not more than 3,200 words of text, or correspondingly less if illustrations are included, for assessment by May 7, 1979.

Further information from: IEE Conference Department, Savoy Place, London WC2R 0BL, England.

## **NEWS OF THE SECTIONS**

## FINLAND SECTION

The Officers of the Section are: Chairman: Prof T. Stubb Vice-Chairman: J. Jaatinen Treasurer: I. Hartimo H. Sandell Secretary:

## **GERMANY SECTION**

On August 31, 1978 the votes for the election of the Executive Committee of the IEEE Germany (West) Section for the term 1979/81 were counted in Frankfurt/Main. The result of this election was:

Chairman:

Prof Dr-Ing W. E. Proebster, Stuttgart

Secretary: Treasurer:

Vice-Chairman: Prof Dr-Ing R. Saal, Munich Dr-Ing R. Coërs, Frankfurt am Main Dr rer nat H. Ruechardt, Munich

1st Assessor: 2nd Assessor:

Prof Dr-Ing D. Kind, Braunschweig Prof Dr-Ing G. Kohn, Stuttgart

Prof Dr phil nat habil Werner J. Kleen, Chairman of the IEEE Germany (West) Section since 1973, will resign from this office by December 31, 1978.

#### ISRAEL SECTION

Although information about the 11th Convention of Electrical and Electronic Engineers in Israel was sent to the Editor in July, it did not reach him in time to be included in the last issue of the Newsletter. The Conference took place at the Hilton Hotel, Tel Aviv, October 23-25, 1978 and, as the November issue of the Newsletter is being written before these dates, it will not be possible to include an account of it until the following issue. The Editor regrets this situation but it is beyond his control.

## SPAIN SECTION

The Officers of the Section are:

Chairman: D Juan Enríquez de Salamanca

Vice-Chairman: D Felipe J. Asenjo

Vice-Chairman: D. Enrique Used

Secretary:

D Roger L. Freeman Treasurer:

D Hermenegildo Marín

## UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

Professional Communication Chapter. The next meeting of the Chapter will take place on January 23rd, 1979 at 6.00 pm (tea 5.30) at Imperial College (Electrical Engineering Department), Exhibition Road, London SW, when Mr Hugh Marlow, MIBM, MIMC, MIPM, wil speak on the Use and Misuse of Computers. This will be a joint meeting with the Institute of Scientific and Technical Communicators (ISTC).

## MEETINGS OUTSIDE REGION 8

## Power Engineering Society Winter Meeting

The 1979 Winter Meeting of the IEEE Power Engineering Society will be held February 4-9, 1979 in New York City. The Winter Meeting is a general meeting which covers the entire field of power and its many areas of technical interest. Authors who have important information to contribute have been invited to submit papers for presentation and discussion at the meeting.

## International Solid-State Circuits Conference

The IEEE International Solid-State Circuits Conference, sponsored by the IEEE Solid-State Circuits Council, the IEEE Philadelphia Section and the University of Pennsylvania, is the foremost global forum for the presentation of new advancements in all aspects of solid-state circuits. For the 1979 conference in Philadelphia, February 14-16, 1979 papers covering the design, performance, fabrication, testing and applications of new solid-state circuits, device structures, phenomena and systems were sought.

Further information from: W. Engl, Institute Fuer Theoretische Elektrotechnik, Technische Hochschule Aachen, Templergraben 55, 51 Aachen, W. Germany, Tel: 0241 80 3900 (3901).

## International Conference on Acoustics, Speech and Signal Processing

The 1979 International Conference on Acoustics, Speech and Signal Processing (ICASSP), sponsored by the IEEE Acoustics, Speech and Signal Processing Society, is the fourth in a series of growing annual conferences. It will be held on April 2, 3 and 4 in Washington, DC. The conference will be devoted to the areas of: General signal processing; Speech processing; Underwater acoustics, seismic signals

and radar; Psychoacoustics, electroacoustics. Further information from: Jude E. Franklin, MAR, Incorporated, 1335

Rockville Pike, Rockville, MD 20852 (301) 424-1310.

# **Springer Series in Electrophysics**

Editors: G. Ecker, W. Engl, L. B. Felsen, K. S. Fu, T. S. Huang

## Volume 1

T. Pavlidis

## Structural Pattern Recognition

1977. 173 figures, 11 tables. XII, 302 pages Cloth DM 43,-; US \$ 21.50 ISBN 3-540-08463-0

Contents: Mathematical Techniques for Curve Fitting.— Graphs and Grids.— Fundamentals of Picture Segmentation.— Advanced Segmentation Techniques.— Scene Analysis.— Analytical Description of Region Boundaries.— Syntactic Analysis of Region Boundaries and Other Curves.— Shape Description by Region Analysis.— Classification, Description and Syntactic Analysis.

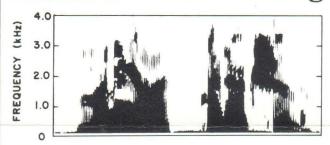
## Volume 2

## **Noise in Physical Systems**

Proceedings of the Fifth International Conference on Noise. Bad Nauheim, Fed. Rep. of Germany, March 13-16, 1978 Editor: D. Wolf 1978. 182 figures. Approx. 350 pages Cloth DM 59,—; US \$ 29.50 ISBN 3-540-09040-1

Contents: Noise in Semiconductor Devices.— Hot Carrier Noise.— 1/f-Noise.— Noise in Magnetic Materials.— Noise in Superconductors and Superconducting Devices.— Noise Measuring Techniques.— Theory.

## **Information Processing**



## J.D. Markel, A.H. Gray, jr. Linear Prediction of Speech

1976. 129 figures. XII, 288 pages (Communication and Cybernetics, Volume 12) Cloth DM 73,—; US \$ 36.50 ISBN 3-540-07563-1

Contents: Introduction.— Formulations.— Solutions and Properties.— Acoustic Tube Modeling.— Speech Synthesis Structures.— Spectral Analysis.— Automatic Formant Trajectory Estimation.— Fundamental Frequency Estimation.— Computational Considerations in Analysis.— Vocoders.— Further Topics.

## **Acoustic Surface Waves**

Editor: A.A. Oliner

1978. 198 figures, 8 tables. XI, 332 pages (Topics in Applied Physics, Volume 24) Cloth DM 96,—; US \$ 48.00 ISBN 3-540-08575-0

Contents: A.A. Oliner: Introduction.— G. W. Farnell: Types and Properties of Surface Waves.— H.M. Gerard: Principles of Surface Wave Filter Design.— E.A. Ash: Fundamentals of Signal Processing Devices.— A.A. Oliner: Waveguides for Surface Waves.— A.J. Slobodnik, Jr.: Materials and Their Influence on Performance.— H.I. Smith: Fabrication Techniques for Surface Wave Devices

## **Optical Data Processing**

**Applications** 

Editor: D. Casasent

1978. 151 figures, 2 tables. XIII, 286 pages (Topics in Applied Physics, Volume 23) Cloth DM 86,-; US \$43.00 ISBN 3-540-08453-3

Contents: D. Casasent, H.J. Caulfield: Basic Concepts.—
B.J. Thompson: Optical Transforms and Coherent Processing Systems with Insights from Crystallography.—
P.S. Considine, R.A. Gonsalves: Optical Image Enhancement and Image Restoration.—E.N. Leith: Synthetic Aperture Radar.—N. Balasubramanian: Optical Processing in Photogrammetry.—N. Abramson: Nondestructive Testing and Metrology.—H.J. Caulfield: Biomedical Applications of Coherent Optics.—D. Casasent: Optical Signal Processing.



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## International Reliability Physics Symposium

The seventeenth annual symposium, co-sponsored by the IEEE Group on Reliability and the Electron Devices Society, will be held April 24-26,

1979 in San Francisco, California.

The 1979 Symposium will emphasize the reliability physics of LSI devices from design through processing, packaging and testing. Included will be papers on: Physics of failure mechanisms; Failure analysis techniques; Accelerated testing and screening techniques; Design and process control for reliability. In the following or related areas: LSI (microprocessors, memory, etc.); Semiconductor/insulator interfaces, contacts and metalization; Packaging, bonding, die attach, coatings and encapsulation; Hybrids (materials, processes and components); Displays, sensors and solar cells; Microwave, optoelectronic and SAW devices; GaAs devices and interface effects on III-V devices; New devices (DMOS, VMOS, HMOS and magnetic bubble devices); New technologies (VLSI, low temperature CVD deposition and dry process etching); Passive components.

Further information from: Dr Frank B Micheletti, General Chairman, 1979 International Reliability Physics Symposium, Rockwell International, Electronics Research Centre, D/545, 022-HA27, 3370 Miraloma Avenue,

Anaheim, CA 92803, USA.

#### International Microwave Symposium

The 1979 MTT-S International Microwave Symposium will be held in Orlando, Florida, April 30-May 2, 1979. The symposium theme is "The World of Microwaves" emphasizing the ever-increasing role of

microwaves in today's world.

The subject areas are: Computer-aided design and measurement techniques; Microwave and millimeter wave solid state devices; Microwave and millimeter wave integrated circuits; Low noise techniques; Microwave passive components and networks; Microwave ferrite devices; High-power techniques; Digital microwave systems; Radiometry and remote sensing systems and applications; Satellite communication/microwave systems: Submillimeter wave techniques and devices; Integrated optics, fibre optics and optical techniques; Microwave acoustics; Microwave field and network theory; Microwave bioeffects; Technology forecasting and new ideas.

Further information from: W. E. Clausen, Sperry Microwave Electronics,

PO Box 4648, Clearwater, Florida 33518, USA.

## Power Industry Computer Applications Conference

The Power Industry Computer Applications Conference will be held May 15-18, 1979 in Cleveland, Ohio. PICA provides a forum for presentation of papers on the applications of computers in analysis and automation of power systems. The conference brings together power system

engineers, computer hardware and software experts, equipment suppliers, as well as industry consultants and academic specialists who have a common interest in development of computer hardware and software to solve power system problems. Papers are sought on practical applications giving users' experiences in the use of new computer methods or installations. Papers which describe novel hardware configurations or new software techniques are also welcome. All accepted papers will be published in full in the 1979 Power Industry Computer Applications Conference Proceedings, IEEE Catalogue Number—79CH1381-3-PWR. Available discussions will be published in the Conference Proceedings Supplement and distributed to all Conference attendees.

Further information from PES Special Activities Office at IEEE Headquarters, 345 East 47th Street, New York 10017, USA.

## Power Engineering Society Summer Meeting

The 1979 Summer Meeting of the IEEE Power Engineering Society will be held July 15-20, 1979 in Vancouver, BC, Canada. The Summer Meeting is a general meeting and covers the entire field of power and its many areas of technical interest. Authors who have important information to contribute are invited to submit papers for presentation

and discussion at the meeting.

Authors who have significant contributions in the power field are invited to submit papers for review by the appropriate Technical Committee. Prospective authors should immediately request an author's kit from the Technical Conference Services Office at IEEE Headquarters, 345 East 47th Street, New York, NY 10017. The kit includes a Declaration of Intent form, the newly revised Publication Guide for Power Engineers (January 1977) outlining the current requirements, and a supply of model paper on which the manuscript is to be typed. The completed Declaration of Intent form should be returned immediately so that preliminary plans may be made to include the paper in the technical programme.

February 1, 1979 is the deadline for receipt of original manuscripts at IEEE Headquarters if the paper is to be considered for the 1979 Summer Meeting. Papers submitted should be within the scope of interest of the Power Engineering Society, technically sound, contribute to existing

knowledge, or reveal knowledge.

Preprints will be made of all papers accepted. Following presentation, papers will be published either in full along with their discussions and closure or in abstract form in Power Apparatus and Systems. Abstracted papers and their discussions will also be available in separate bound volumes. To be published in full, a paper must be of unquestionably high quality and in the judgment of the reviewers make a definite contribution to the technical knowledge. All accepted papers along with discussions and closures will be indexed and available on request in the future.

## STOP PRESS

## RESULTS OF ANNUAL ELECTION

The following have been elected:

President
JEROME J. SURAN (Board Nominee)
Executive Vice President
LEO YOUNG (Board Nominee)

Director Region 8
DICK C. J. POORTVLIET

The proposed **Constitutional Amendment** (which was opposed by the Board of Directors) failed to secure the required two-thirds majority of votes cast.

## **EUROCON '80**

As is announced in the Regional Director's Report on page 1, the Fourth Eurocon Conference "From Electronics to Microelectronics: Trends and Applications" will be held in the University of Stuttgart in the Spring of 1980. The Conference will cover the following themes: Microelectronics in telecommunications; Microelectronics in electrical power and control engineering; Applications of microelectronics for professional, consumer, administration, banking and medicine. In addition, there will be sessions devoted to software and software training, to the social implications of the forthcoming microelectronic revolution, and special sessions for students and careers and methods of technological forecasting of new products. Further announcements will be made in subsequent issues of this Newsletter.

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