

# IEEE Region 8 newsletter

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No. 61 FEBRUARY 1983

## 7th DECEMBER '83 - AFRICON '83 - 9th DECEMBER '83 THE KENYATTA CONFERENCE CENTRE, NAIROBI, KENYA

AFRICON '83 is an International Conference to be held in the Kenyatta Conference Centre, Nairobi, Kenya, on 7-9 December 1983. The sponsors are Region 8, the recently formed Kenya Section, and the IEEE Technical Societies for Industry Applications, for Communications, and for Power. AFRICON '83 will be the first major conference organised on the continent of Africa by the IEEE.

The Conference will put special emphasis on meeting the needs in electrotechnology which countries in Africa foresee over the next five to ten years. The principal subject areas are: status, plans, and needs of users of power communications and other electrical technology in Africa; preparedness to meet user needs locally with present and future products and systems; preparedness to meet user needs internationally with present and future products and systems.

Papers are now invited; abstracts of approximately 250 words should reach Professor Walter E. Proebster, IBM Deutschland GmbH, Postfach 80 08 80, 7000 Stuttgart 80, Federal Republic of Germany, not later than 31 March 1983.

The following appointments have been made to the AFRICON '83 organisation: Steering Committee-Chairman, Mr. D. D. Patel; Vice-Chairman, Professor W. E. Proebster. Technical Programme Committee: Chairman, Professor A. Y. Bilal; Vice-Chairman, Professor K. F. Goser. Treasurers: Mr. Baumgarten, Mr. R. Davey, Mr. J. C. Rosenberg. Local Arrangements Committee: Chairman, Mr. J. C. Rosenberg. Publicity Committee: Chairman, Mr. R. C. Winton.

Associated with the Conference will be an Exhibition of Components and Systems relating to the themes of the Conference.

Further information, registration forms, and the preliminary programme, are available from Ms. R. Mischler, IBM Research Laboratory, 8803 Rueschlikon - ZH, Switzerland.



*The Kenyatta Conference Centre, Nairobi, Kenya.*



## MELECON '83

ATHENS GREECE MAY 24-26 1983



Final preparations for The Mediterranean Electrotechnical Conference 1983 are well in hand. The success of MELECON '81 has guaranteed a good attendance and the varied programme promises a highly stimulating three days.

The main topics to be covered are: Solar Energy and Electric Power Systems, Communications Systems, Computers and other allied subjects. The theme of the conference is the interaction between these with special emphasis on the Mediterranean area.

Two-days tutorials are to be held following the conference and other

events include a Young Engineer Contest, the IEEE Region 8 Student Paper Contest and opportunities to take advantage of the many interesting places to visit in the vicinity.

### INFORMATION

For all information, registration forms, submission of summaries and papers, please write to:

MELECON '83 Secretariat, c/o Prof. E. N. Protonotarios, National Technical University, 42 October 28 Street, Athens (147) Greece.

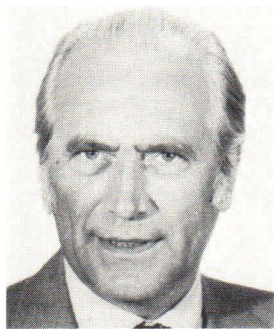
### CONTENTS

AFRICON '83 .....	1
MELECON '83 .....	1
Report from the Regional Director .....	2
Report from the Immediate Past Director .....	2
Region 8 appointments .....	2
Hanover Tutorial Week Europe '83 .....	3

News of the Sections .....	3
Meetings in Region 8 .....	3 & 4
Student News .....	6
Ballot News .....	6
Awards in Region 8 .....	6
Advertising and Insert Rates .....	6



## REPORT FROM THE NEW REGIONAL DIRECTOR



Karsten E. Drangeid  
Director Region 8 1983-84

Dear Members of Region 8,  
As new director I have little to report, but I would like to take this opportunity to thank you for the confidence that you have shown me by electing me to the Director of Region 8. Although this is a little late, I would like to wish all of you a happy and successful year.

Our region has had a good year in 1982 with several accomplishments, continuing the trend which has been set by our past directors. In this connection I would like to thank Professor Dr. Walter E. Proebster for his contribution and the outstanding leadership he has shown during his two year term as director. I hope and intend to maintain this upward trend and I am

looking forward to the two years to come as director for our region. Nineteen-eighty-three will be an interesting year. We have two major conferences coming up, namely MELECON 83 in Athens, and AFRICON 83 in Nairobi. MELECON had a successful start in 1981. The programme of the MELECON emphasizes applications of interest to the Mediterranean countries. AFRICON is taking place for the first time and

is the first IEEE Conference on all Africa. The focus here is applications of electrical technology for Africa. With these two conferences in addition to EUROCON, we have conferences in three major geographical areas of our region, with special emphasis on the interests within these areas – this is only mentioning some of the conferences. We have, however, a lot of additional activity in the various sections and student branches and the cooperation with national societies, we can steadily improve the benefits for all our members.

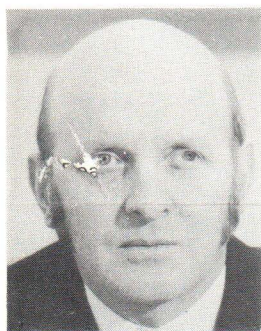
In 1983 we will have to plan for the celebration of the centennial of our institute, which will take place in 1984. We have only one more year to go. Many sections within our region have already started the preparations. I believe we are all looking forward to a worthy celebration in the region and in the various sections.

Starting my two year term as Director of the Region 8, I would like to express my hope that many of the IEEE members will continue to contribute to the same extent as in the past. In the Region 8 meetings where I have participated, I have always been impressed by the readiness, energy and enthusiasm with which all kinds of activities have been initiated and carried out.

I am looking forward to serving you in the future and I hope we will have a successful 1983.

KARSTEN E. DRANGEID  
Rueschlikon, Switzerland

## REPORT OF THE IMMEDIATE PAST DIRECTOR



Prof. Dr. Walter E. Proebster  
Immediate Past Director Region 8

Having left office on 31 December, I wish to give you a report on my two years as your Director.

The goals on which I was elected, and which were published in the August 1980 Newsletter, and the progress we have made towards them are:

**1. Promoting understanding with national societies.** We have increased the awareness, throughout the Institute, of the importance of good relations between the IEEE and national societies. In general, my experience in the many contacts which I have had around the Region, and from discussions in the Region 8 Committee, is that relations between the IEEE and national societies are much better than

they have ever been.

In particular: at a meeting between the IEEE and EUREL we signed an agreement which is a foundation for the continuation of harmonious relationships; we have secured changes in the central administrative arrangements in New York which will enable Sections, and through them national societies, to be advised earlier of conferences which are planned to be held in our Region, thus making a very considerable improvement in a situation which has caused a great deal of concern to the Region 8 Committee.

**2. Promoting greater public recognition of the electrical engineering profession.** As part of the agreement with EUREL which I have already mentioned we shall publish joint position statements on matters of public interest. I believe that this development will eventually lead to greater public awareness of the value of the electrical engineering profession, and at the Region 8 Committee in October 1982 we agreed on the next steps to be taken.

**3. Strengthening Region 8 conference activities.** We have had the first MELECON, which was most successful, a very good EUROCON 82, and we have launched AFRICON. We have achieved a EUROCON and a MELECON conference in alternate years from 1981 as far ahead as

1986; we have streamlined Region 8 conference activities by the appointment of a Regional Conference Co-ordinator and of Section Conference Co-ordinators to provide, in effect, a Regional Conference Board; we issue a Conference Calendar which is considered as the official list within the area of Region 8.

**4. Strengthening the financial well-being of our Region.** We have been watchful in ensuring that the increased revenue received through the Regional Assessment has been used in ways which will be of most benefit to members in Region 8. MELECON 81 produced a surplus of income over expenditure; the advertisements and inserts received for the Newsletter have produced a very substantial reduction in the net costs of the Newsletter which must be met from Region 8 funds; we have participated financially in a number of conferences in the Region for the first time; we have increased our financial support for student activities; we have been able to promote the formation of new Sections more effectively.

In addition to these four points we have been active in continuing education and in membership development. In continuing education, for instance, we are in close contact with the Computer Society and with the Society for Industrial Electronics in connection with the Tutorial Week at the Hanover Fair in April 1983. On membership development, we now have about 14,000 members, following membership increases of about ten per cent in 1981 and again in 1982. An additional highlight is the formation of the Kenya Section, recently approved by the Regional Activities Board.

In what I have written above I have used the word "we", because any positive results I have achieved would not have been possible without the co-operation, assistance, and hard work of a large number of persons, not only members of the Region 8 Committee, but also the very many people with whom I have worked on Headquarters' committees, from the Board of Directors downwards, and especially the members of Headquarters' staff.

I send my thanks to them all; to them, and to all members in Region 8, may I say how much I have enjoyed working with you and working for you.

WALTER E. PROEBSTER  
Boeblingen, Federal Republic of Germany

3 January 1983

## REGION 8 APPOINTMENTS

### D. C. J. Poortvliet

Member-at-Large for 1983/84 with the IEEE Nomination & Appointment (N&A) Committee.

### W. E. Proebster (Immediate Past-Director, Region 8)

Member of the Nomination and Appointment Committee 1983/84.  
Chairman Transnational Committee RAB: 1983.

### Erol Gelenbe

Chairman of the Computer Chapter, IEEE Region 8 France Section.

### Alain Profit

Chairman of the Communications Chapter, IEEE Region 8 France Section.

### Robert C. Winton

Has been re-appointed Secretary, Region 8.



## IEEE HANOVER TUTORIAL WEEK EUROPE 83

The second Tutorial Week Europe will be held on 15-20 April 1983 at the Hanover Fairgrounds in Germany, concurrently with the Hanover Fair, the largest engineering and industrial exhibition in the world. A series of eight three-hour tutorials will be presented, four times each, allowing visitors to the Fair to attend any number of Tutorials at convenient times.

The series of Tutorials is co-sponsored by IEEE Region 8, IEEE Computer Society and IEEE Industrial Electronics Society and will feature advanced topics on applications of Computer Technology to home, office and industry. Each lecture will be presented by a specialist in the subject and a separate volume of Tutorial Notes for each Tutorial will be distributed to registrants. Some of the lectures will be held in German and some in English.

The subjects and lecturers of Tutorial Week Europe 83 are: Office automation systems, by Prof. Dr. S. Bing Yao, University of Maryland, USA; Advanced topics in computer graphics with applications in CAD/CAM, by Prof. Dr. J. Encarnacao, Technische Hochschule

Darmstadt, Germany; Local area networks: Architecture, Technology and Applications, by Dr. M. Reiser, IBM Zurich Research Laboratory, Switzerland; Process and numerical control, by Prof. Dr. R. Lauber, University of Stuttgart, Germany; Robotics: Electronic control systems, by Dr. J. F. Cassidy, Jr., General Electric Company, Schenectady, New York, USA; Microcomputer design tools and applications, by Prof. Dr. T. Cain, University of Pittsburgh, Pennsylvania, USA; Design and trends in home information systems, by Dr. J. Baal-Schem, Tel-Aviv University, Israel; Personal desk-top computer market, by Dr. P. Isaacson and Dr. E. Juliussen, Future Computing Inc., Richardson, Texas, USA.

The Co-General Chairman of the Tutorials are: Dr. C. R. Vick and Dr. H. T. Nagle of Auburn University, Alabama, USA.

For additional information and registration (\$50 per Tutorial, including Tutorial Notes and a free entrance ticket for one day at Hanover Fair), contact: - Fr. Stockhammer, Deutsche Messe- und Ausstellungs- AG, Messegelände, D-3000 Hanover 82, West Germany or - Tutorial Week Europe, P.O. Box 639, Silver Spring, MD 20901, USA.

## NEWS OF THE SECTIONS

### PORTUGAL SECTION (Chairman: Prof. M de Medeiros Silva)

This Section started its activities in 1982, and has been very active. Various technical meetings have been held, with the participation of national, and also American and English speakers.

**Visits of IEEE President and Region 8 Director.** In July, Dr. Larson, IEEE President, gave a well-attended seminar, and met with Section Officers and Members. The Section was also visited by Region 8 Director, Prof. W. E. Proebster, who met with Committee Members.

**Symposium on Industrial Electronics.** This was held in Lisbon on 24 November with a strong participation of the Portugal Section as one of the sponsors. The symposium was highly successful, and the interest for it was such that the participation had to be limited to 200. The organization was outstanding, and this was essentially due to the effort of IEEE Members Victor Anunciada and Beatriz Borges.

**Elections for 1983.** The elections for the Executive Committee took place in December and the following Officers have been elected: Prof. Medeiros Silva, Chairman; Prof. Francisco Restivo, Vice-Chairman; Dr. Paulo Teixeira, Secretary-Treasurer.

**Membership Development.** The number of members in the Section has been increasing steeply: in 1982 it went from 80 to 130. Everything will be done to keep a similar rate of increase in 1983.

### NEW SECTION - KENYA

It was reported in the November Newsletter that members in Kenya wanted to form a Section. This has now happened and the Chairman is Mr. D. D. Patel. - Kenya is hosting the first AFRICON in November of this year and full details of the conference are given on page 1.

## MEETINGS IN REGION 8

### 5th Symposium on Electromagnetic Compatibility

The Symposium and Technical Exhibition on Electromagnetic Compatibility is organized every odd year and attained in 1981 with 500 attendees and 25 exhibitors a record-breaking participation. It is sponsored by the Association of Swiss Electrotechnicians (SEV/ASE), IEEE EMC Society, IEEE Switzerland Section and others.

Over 100 papers originating from nearly twenty countries will be delivered in eighteen sessions entitled: Environment, Interference Models, Propagation and Wave Coupling, NEMP (nuclear electromagnetic pulse), Biological Effects, Power Electronics, NEMP Simulation, Immunity, Suppression Techniques, Transmission Line Coupling, Shielding and Grounding, EMC Standards, Non-Homogenous Fields, Measurements, EMC Computer Programs, EMI in Microelectronics, Spectrum Management, EMC Analysis and Design. A technical exhibition and a number of workshops round off the technical programme.

As usual, the Symposium will review the current status and future trends of the EMC science. The workshops, organized on a question-answer basis in direct contact with the speakers, provide an introduction to newcomers, and respond to the needs of practising engineers. The exhibition, which will also be open to the non-registered public, will introduce modern measuring techniques, new technologies in materials and components, as well as EMC training programmes. The full text of all conference papers will be made available in the conference proceedings: "EMC 1983".

Copies of the Preliminary Programme for the Symposium in Zurich, 8-10 March 1983, with registration forms and further information concerning the symposium and technical exhibition may be obtained from: Dr. T. Dvorak, ETH Zentrum-IKT, 8092 Zurich, Switzerland. Phone (+411) 256-2790; Tlx: 53-178 ETHBI CH.

### Solid State Transducer '83

SST 83, to be held in Delft, The Netherlands, 31 May-3 June 1983, is an international biannual conference aimed at advancing the understanding of the physics and chemistry relevant to solid-state sensors and actuators and to further the applications of these transducers. The SST 83 will be the second in a series that started in Boston in 1981.

The conference will present current research on all aspects of the design and application of solid-state transducers. Contributions are anticipated from scientists from both the academic and industrial spheres in many areas of physics, chemistry, materials science and electrical engineering. Papers on the following themes will be welcome: General, e.g. instrumentation systems, physical effects, application areas.

Materials and Technology, e.g. semiconductors, quartz, polymers, glass fibres, metal oxides.

Interface Electronics, e.g. intelligent transducers, computer-corrected sensors, offset correction, A/D conversion.

Transducers for Radiant Signals, e.g. photodiodes, CCD's optoisolators, X-ray detectors, nuclear-radiation detectors.

Transducers for Mechanical Signals, e.g. silicon pressure sensors, SAW devices, flow sensors, angle sensors.

Transducers for Thermal Signals, e.g. Hall-effect devices, magnetodiodes, magnistors, carrier-domain magnetometers.

Transducers for Magnetic Signals, e.g. thermistors, PTAT circuits, thermopiles, pyroelectric devices.

Transducers for Chemical Signals, e.g. ISFET's Pd-gate MOSFET's, humidity sensors, chemical resistors.

Actuators, e.g. lasers, piezoelectric devices, thermal print heads, magnetic recording heads.

The proceedings of the conference will be published in the journal *Sensors and Actuators*, Elsevier Sequoia S.A. Lausanne, Switzerland.

For further information please contact: Department of Electrical Engineering, Attn: Y Smits, Delft University of Technology, P.O. Box 5031, 2600 GA Delft, The Netherlands. Telephone: (015) 785914; Telex: 38151.

### Wave Propagation and Remote Sensing Symposium

This Symposium, organized by URSI Commission F, will be held 9-15 June 1983 in Louvain-la Neuve, Belgium.

The aim of the Symposium is to provide an opportunity for interaction among the propagation and remote sensing scientific communities. It is also intended to bring some new topics and subjects of research to the attention of the propagation scientists. In papers on remote sensing, the focus will be set on the propagation aspects of electromagnetic waves and on the interaction of waves with the medium and with the surface. Tutorial papers will emphasize fundamental concepts and the state-of-the-art of some important related topics.

In addition to the presentation of the contributed papers there will be the following Tutorial Papers: Common grounds to propagation and remote sensing, D. Gjessing; Millimetre waves: new potentialities and technological developments, K. J. Button; Wave propagation: turbulence in clear air, R. Bolgiano; Wave propagation through precipitations, P. Delogne; Physico-chemistry of the atmosphere: less known phenomena and their importance for E.M. wave propagation, Ph. Waldteufel; Wave scattering by random surfaces and application to natural surfaces.

Further information from: URSI Commission F 1983 Symposium, Laboratoire de Telecommunications U.C.L., Bâtiment Maxwell, B-1348 Louvain-la-Neuve, Belgium. Tel: +32 10/41.81.81 (2300). Telex: 59.315 TELHY-B.



**3rd International Conference on Numerical Analysis of Semiconductor Devices and Integrated Circuits (NASECODE III)**

This Conference is to be held 15 to 17 June 1983 in Galway, Ireland, under the auspices of the Numerical Analysis Group and co-sponsored by the Electron Devices Society of the IEEE Technical Group on Semiconductor and Semiconductor Devices of the IECE Institute for Numerical Computation and Analysis, and the Irish Mathematical Society.

There will be seven keynote papers by W. Fichtner, H. Kawanishi, P. Lloyd, D. J. Rose, S. Selberherr, R. Tielert and A. Yoshii. Discussions will be led by E. A. Kraut, M. S. Mock and R. van Overstraeten. Each contributed paper will be presented by its author in twenty minutes.

The Symposium will be preceded on 13 and 14 June by an International Short Course on Finite Element Programming with Special Emphasis on Semiconductor Device and Process Modelling. The course lecturers will be: T. Arnborg – Royal Institute of Technology, Stockholm; K. Board – University College, Swansea; A. R. Boothroyd – Carleton University, Ottawa; W. T. Cochran – Bell Laboratories, Allentown; W. T. Coffey – Trinity College, Dublin; R. W. Dutton – Stanford University, Stanford; W. Fichtner – Bell Laboratories, Murray Hill; A. F. Kravchenko – Institute of Semiconductor Physics, Novosibirsk; P. Mole – General Electric, Wembley; E. Palm – Catholic University of Louvain, Louvain la Neuve; S. J. Polak – Philips Industries, Eindhoven; D. J. Rose – Bell Laboratories, Murray Hill; M. Rudan – Institute of Electronics, Bologna; A. V. Rzanov – Academy of Sciences, Novosibirsk; C. W. Trowbridge – Rutherford Laboratories, Didcot; N. N. Yanenko – Institute for Theoretical and Applied Mechanics, Novosibirsk.

Further information from: NASECODE III Secretariat, c/o Boole Press Limited, P.O. Box 5, 51 Sandycove Road, Dun Laoghaire, Co. Dublin, Ireland. Telephone: +353-1-808025. Telex: 92240 SOTR EI.

**6th International Symposium on Measurement and Control (MECO 83)**

This Symposium, supported by the Greece Section, will be held 29-31 August 1983 in Athens, Greece.

Papers are invited on the theoretical and practical aspects of measurement, instrumentation, signal processing and control. Special sessions on microcomputers as well as on management control applications are welcome.

Abstracts should be sent before 15 April 1983 and full papers by 15 August 1983.

For correspondence, submission of papers, and to be placed on the mailing list: Prof. S. G. Tzafestas, MECO '83 Symposium, Electrical Engineering Department, University of Patras, Patras, Greece.

**International Symposium on Modelling, Planning, Decision and Control in Energy and Environmental Systems (EES 83)**

This Symposium is supported by the Greece Section and will be held 31 August-2 September 1983 in Athens, Greece.

Papers are invited on various aspects of energy, power and environmental systems. Particularly, papers dealing with the interaction of energy and environmental systems are welcome.

Abstracts should be sent before 15 April 1983 and full papers by 15 August 1983.

For correspondence, submission of papers, and to be placed on the mailing list: Prof. S. G. Tzafestas, EES '83 Symposium, Electrical Engineering Department, University of Patras, Patras, Greece.

**13th European Microwave Conference**

The conference is to be held at NMA, Messezentrum, Nürnberg, West Germany, 5-8 September 1983. The Conference Chairman is Prof. Dr. H. Groll, Tech. Universität München, Arcisstrasse 21, D 8000 München 2.

Topics to be included: Radio link systems; Satellite communications systems; Navigation aids; Radar systems; Microwave techniques in remote sensing and radio astronomy; Microwave measurements; Antennas; Passive components and circuits including non-reciprocal devices; Microwave tubes; Solid state devices; Mixers and low-noise reception; Millimetre wave components and circuits; Quasi optical techniques; GaAs-MMICs and their applications; Subnanosecond digital techniques; Microwave imaging and inverse scattering; Medical, biological and industrial applications.

Further information from the organizers: Microwave Exhibitions & Publishers Ltd, Convex House, 43 Dudley Road, Tunbridge Wells, Kent, TN11 1LE, England. Tel: 0982-44027; Telex: 95604 MEPNCL G.

**6th European Conference on Circuit Theory and Design (ECCTD)**

The Sixth European Conference on Circuit Theory and Design (ECCTD) will be held at the University of Stuttgart, Germany, from 5 to 9 September 1983. Sites of previous conferences in the same series were London, Geneva, Lausanne, Warsaw and The Hague.

As is now tradition, the conference will be devoted to all aspects of theory and design of time-continuous and time-discrete, analogue and digital, linear and non-linear, lumped and distributed circuits, including graph theory, circuit optimization and modelling, and interaction between circuit theory and IC technology. Applications of circuit theory will emphasize communications systems and the detection and identification of signals. The conference will include tutorial and special sessions on topics of current interest.

Authors were invited to submit papers suitable for a 20-minute presentation. Papers should be typed double-spaced on regular format sheets. Four copies of each paper should be submitted by 1 February 1983 to the ECCTD '83 Conference Secretariat, Institut für Netzwerk- und Systemtheorie, Universität Stuttgart, Seidenstrasse 36, 7000 Stuttgart, West Germany. Telephone (49) (711) 2073 2573; Telex 07-21 703.

Notice of acceptance is planned for 15 March 1983, and camera-ready copies for reproduction in the proceedings have to be received by 1 May 1983.

Notice of acceptance is planned for 15 March 1983, and camera-ready copies for reproduction in the proceedings have to be received by 1 May 1983.

The conference is organized by the Nachrichtentechnische Gesellschaft (NTG) and is co-sponsored by IEEE Region 8 and IEEE Germany Section.

**Software Engineering for Microprocessor Systems**

A one-week residential Vacation School on "Software Engineering for Microprocessor Systems" will be held at the University of Kent, Canterbury, England, from 11-16 September 1983. The School is intended for those already involved in the design of microprocessor systems for real-time applications, and is intended to introduce them to software engineering methods that can assist in the production of high-quality reliable software. The School is being organized by IEE, in association with the UK and Republic of Ireland Section of IEEE, and further details will be available from IEE, Savoy Place, London, WC2R 0BL, UK. (Tel: 01-240 1871) in March 1983.

**1984 International Communications Conference in Amsterdam**

Amsterdam will host the 1984 IEEE International Conference on Communications, ICC '84, which will be held from 14-17 May in the RAI Conference Centre, Amsterdam, The Netherlands.

This conference is one of the ICC/GLOBECOM series of conferences, sponsored by the IEEE Communications Society.

These famous conferences have traditionally been held in North America. To emphasize the increasing international scope of the Telecommunication field, the IEEE Communications Society have decided to spread the location of these conferences worldwide.

Amsterdam was chosen to host this conference for the first time outside North America.

**Science, Systems and Service.** These three vital keywords in communications have been selected as theme for the conference.

The conference will bring state-of-the-art contributions on new developments, in all relevant fields of communications.

Next to the scientific base, modern developments in communication systems will be covered.

Also new services and communications-policy issues will be discussed.

**Exhibit.** Leading firms and organizations in the field of communications will be invited to contribute to a technical exhibition, which is going to be held in the same Congress Centre. They will show new equipment, systems and services.

**Organization.** The conference is sponsored by the Communications Society of the IEEE and co-sponsored by the IEEE Benelux Section. Also, EUREL, IEEE and the local Dutch Societies KIVI and NERG will participate.

The actual organization is the responsibility of an Executive Committee, chaired by Dr. K. Teer, Managing Director of the Philips' Research Laboratories, Eindhoven, The Netherlands. The technical programme will be co-ordinated by Mr. C. A. May, Director of Research of the British Telecom Research Laboratories.

**Information.** Further information can be obtained from Dr. T. A. C. M. Claasen, Secretary of the Executive Committee, Philips' Research Laboratories, P.O. Box 218, 5800 MD Eindhoven, The Netherlands. Tel: (31) 40-742131/742236.



# For the advanced professional:

## JAPAN'S BLUEPRINT FOR 1990:

### Fifth Generation Computer Systems

edited by **T. MOTO-OKA**, JIPDEC, Head of Japan's Supercomputer and Fifth Generation Computer Projects, Japan Information Processing Development Centre, Tokyo 105, Japan

1982 296 pages US \$49.00/Dfl. 140.00 ISBN 0-444-86440-7

The Japan Information Processing Development Centre (JIPDEC) whose objective is to promote the advancement of information processing and the information processing industry, established a committee for Study and Research on Fifth-Generation Computers. Beginning in 1979, this Committee set out on a two-year investigation into the most desirable types of computer systems for application in the 1990's. This book contains the papers presented at the International Conference on Fifth Generation Computer Systems, Tokyo, 19-22 October 1981. Included among these papers is a preliminary report on the findings of the Committee. A must for anyone interested in the "Japanese knowledge-bomb".

The book is divided as follows: Parts I. Keynote Speech. II. Overview Report. III. Knowledge Information Processing Research Plan. IV. Architecture Research Plan. V. Invited Lectures - Knowledge Information Processing. VI. Invited Lectures - Architecture.

*"The publication of this work, containing as it does all relevant papers to date on the Japanese Fifth Generation Project, comes as a substantial relief to the reviewer. Ever since Computer Weekly ran reviews of the project taken from the Tokyo conference papers last year, it has been plagued by requests for the documents. Well, here they are...."*

COMPUTER WEEKLY

### File Structures and Data Bases for CAD

Proceedings of the IFIP WG 5.2 Working Conference on File Structures and Data Bases for CAD, Seeheim, F.R.G., September 14-16, 1981

edited by **J. ENCARNACAO**, Technische Hochschule Darmstadt, FRG and **F.-L. KRAUSE**, Institut für Produktionsanlagen und Konstruktionstechnik, Berlin, FRG.

1982 x + 372 pages Price: US \$46.75/Dfl. 110.00  
ISBN 0-444-86462-8

This Proceedings volume, of the first IFIP WG 5.2. Working Conference on File Structures, was conceived because of the fundamental importance of that subject for the design, use and enlargement of CAD systems. It covers aspects of man machine communication, data modelling for geometry processing, implementation problems, industrial applications, systems environments and research issues.

The book not only includes all fifteen papers presented at the conference, but also the complete record of all the technical discussions which took place.

### Microsystems: Architecture, Integration and Use

Eighth EUROMICRO Symposium on Microprocessing and Microprogramming, Haifa, September 5-9, 1982

edited by **CEES J. VAN SPRONSEN**, and **LUTZ RICHTER**

1982 x + 354 pages Price: US \$59.50/Dfl. 140.00  
ISBN 0-444-86470-9

This book contains the collection of papers accepted for the 8th annual EUROMICRO conference. The topics covered include contributions on system architecture, firmware and microprogramming, hard and software tools, languages, component technology, interfacing, networks, communication and education. Special emphasis is given to contributions on architecture and integration of microcomputer systems. The main features are:

- Up-to-date state of the art in the field
- a valuable reference source
- a "who is who" for research in the area

### Reliability in Electrical and Electronic Components and Systems

Proceedings of the Fifth European Conference on Electro-technics - EUROCON '82 - Copenhagen, Denmark, 14-18 June, 1982

edited by **E. LAUGER**, Municipal Electricity Department, Odense, Denmark and **J. MØLTØFT**, The Engineering Academy of Denmark, Lyngby, Denmark

1982 xxviii + 1170 pages Price: US \$95.00/Dfl. 250.00  
ISBN: 0-444-86429-9

This Fifth EUROCON Conference, sponsored jointly by EUREL, and by IEEE-Region 8, has as its theme Reliability in Electrical and Electronic Components and Systems, a topic of immediate importance. Apart from reliability experts, EUROCON '82 is aimed in particular at the design engineer, because reliability must be designed into the systems from the very beginning of the product development. For this reason great emphasis has been laid in selecting papers dealing with the practical aspects of reliability engineering. This is reflected in the six mainstreams of the conference: Reliability Theory; Reliability of Components for Electrical and Electronic Systems; Reliability of Electrical and Electronic Systems; Reliability of Electric Power Systems; Reliability Testing and Data Analysis; and, Human Aspects, Management and Economy in Reliability Engineering.

The papers contained in this book offer an insight to the state-of-the-art with regard to reliability engineering. This is broadened to show the future trends and links to society by the inclusion of invited contributions by highly recognized keynote and plenum speakers.

**CONTENTS:** Part I. Foreword. Keynote Address. Technical and Economic Implications of Reliability (*Sir Herbert Durkin*). A New Direction for Electronic Reliability Engineering in the 80's (*Kam L. Wong*). Plenum Session. Reliability as a Marketing Factor (*F. Ask*). Reliability Aspects in Power Systems (*J. A. Bubenko Sr. and H. Habibollahzadeh*). Reliability in Telecommunications (*F. Ohmann*). Measuring and Modelling Integrated Circuit Failure Rates (*F. H. Reynolds*).

### Pathways to the Information Society

Proceedings of the Sixth International Conference on Computer Communication, London, September 7-10, 1982

edited by **M. B. WILLIAMS**, British Telecommunications, London

1982 xx + 1018 pages Price: US \$55.00/Dfl. 175.00  
ISBN 0-444-86464-4

This work comprises 175 papers and was sponsored by the International Council for Computer Communication (ICCC). The papers were assembled from authors from a wide range of disciplines. These include the computer and telecommunications industries, public and private operating agencies, university departments of computer science and humanities and commercial users.

### Eurographics 82

Proceedings of the International Conference and Exhibition, University of Manchester, Institute of Science and Technology - U.M.I.S.T., Manchester, U.K., September 8-10, 1982

edited by **D. S. GREENAWAY**, Rutherford Appleton Laboratory, Didcot, U.K. and **E. A. WARMAN**, K. Four, Peterborough, U.K.

1982 xiv + 396 pages Price: US \$51.00/Dfl. 120.00  
ISBN 0-444-86480-6

This volume provides the annual update of developments in hardware and software and applications of all aspects of computer graphics. It is one of a continuous series of Eurographics publications. Scientific, industrial, educational and commercial aspects are addressed. The standard of paper selection is high and this volume presents the key European aspects of computer graphics.



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## STUDENT NEWS

### "Student Activities to the benefit of Electrical Engineering Students". -A Region 8 Publication.

The first guide to student activities in Region 8 has been written by Prof. André Vander Vorst (Chairman, Student Activities Committee) with the co-operation of Bob Winton (Secretary, Region 8).

The purpose of this short and very readable booklet is to interest students in forming new branches and to give extra background and information to existing branches. It covers all aspects of student activities in the Region from the explanation of IEEE terminology to guidelines on presenting papers in student contests. In addition it states

the benefits to students of belonging to the IEEE in a straightforward way and explains the method of forming and operating a student branch.

It is a useful reference book for anyone interested in student activities and includes historical notes which highlight the rapid growth of this important facet of IEEE operations.

Copies can be obtained from: Prof. André Vander Vorst, Laboratoire Bâtiment Maxwell, Université Catholique de Louvain, B-1348 Louvain-la-Neuve, Belgium.

## BALLOT NEWS

In the November issue of the Newsletter it was possible to give brief details of the result of the ballot for the new Region 8 Director, Karsten E. Drangeid.

Other ballot results include:

Richard J. Gowan - Elected President Elect, 1983.

Charles A. Eldon - Elected Executive Vice-President, 1983.

The proposed IEEE Constitutional Amendment was heavily defeated (approximately 29,000 votes to 10,000).

Only 17% of those entitled to vote in Region 8 did so and in some cases the votes cast were invalid. The main reasons for this were:

**Late ballots:** Long distance international mail, particularly surface mail is notorious for the length of time it takes and many members fail to post their votes in time for them to arrive before the closing date of the ballot. (Sometimes the postmark shows that votes have been posted several days after the closing date!).

**Unconstitutional ballots** (unsigned voting papers): a ballot which is not signed in the space requested (this may be either in the top left hand corner of the return envelope or on the ballot paper itself) is not counted.

**Write-in ballots:** The practice of writing in a name that does not appear on the ballot paper is more widespread in the USA. but it does happen in Region 8.

**Invalid ballots:** These are when a member votes for more than the number of candidates to be elected. Although it may seem hard to believe nine members voted both for and against the Constitutional Amendment - I'm glad to say none of these were from Region 8.

Do remember when returning a ballot to include your signature where this is requested, check the closing date, post by airmail and most important POST EARLY.

GRETTA GOURIET  
Assistant Production Editor.

## AWARDS IN REGION 8

### IEEE FIELD AWARD

The Board of Directors has approved the 1982 Control Systems Science and Engineering Award "for contribution to multivariable control theory and design methods" to **Howard H. Rosenbrock**. The presentation was scheduled for 11 December at the Conference on Decision and Control, Orlando, Fla.

Dr. Rosenbrock, professor of control engineering at the University of Manchester Institute of Science and Technology, is working on the social effects of automation under an SRC senior fellowship award.

Dr. Rosenbrock received a Ph.D. degree from London University in 1955.

### ELLEN AND HANS HERMER AWARD

**Dr. Ole Immanuel Franksen**, Associate Professor at the Electric Power Engineering Department, Technical University of Denmark, has been conferred an honorary award of Da. kr. 70,000 by the Ellen and Hans Hermer Foundation for his contribution to systems science.

The award of this Foundation, which is under the permanent trusteeship of the rectors in office of Copenhagen University, the Technical University of Denmark, and the Royal Veterinary and Agricultural University, cannot be applied for.

Dr. Franksen was recently re-elected for a third term in office as Vice-Chairman of the IEEE Denmark Section.

## ADVERTISING AND INSERTS IN THE IEEE REGION 8 NEWSLETTER

The Institute of Electrical and Electronics Engineers (IEEE) Region 8 NEWSLETTER provides an inexpensive medium for direct-mailing inserts and for placing advertisements about your conferences, courses, exhibitions, books and publications. A very real advantage of using the NEWSLETTER is that it has limited advertising space, in contrast to a journal with many pages of advertising, so that your advertisement or insert commands attention equivalent to a direct-mail shot.

You can reach a select mailing list of 14,000 English-speaking electronics, computer, and electrical engineers in 73 countries at a rate of US \$0.13 each for a full-page advertisement or insert - less than one-half of the cost of the postage stamps for a direct-mail shot.

### ADVERTISING RATES

Display - \$1,740 per full page, \$940 per half page, \$500 per quarter page. Full page advertisement size 270mm x 190mm. These rates are for 'camera ready' copy - a charge at cost will be made for any setting required.

### INSERT RATES

For full Regional distribution to 14,000 members in 73 countries in Europe, Middle East and Africa, size A5 or folded to A5 (148mm x 210mm), weight 10gms \$1,740, 20gms \$2,030, 30gms \$2,330. Lower rates for distribution to one country only or to a group of countries. Additional charge if collation or folding required. Recommended method of delivery is by direct air mail parcel post (check local postal regulations for maximum weight per parcel) or by air freight addressed to County Secretarial Services with prior notification of airway bill number, flight number and date. Surface transport is liable to considerable delay at port of entry. Before shipment of inserts check that the deadline date will be met including allowance for customs clearance and delivery to Guildford.

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