

IEEE Region 8 newsletter



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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
INCORPORATED

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No. 43 AUGUST 1978

Please use your right to vote in the coming election and use it in the right way!

In the fall of 1978 new people will be voted in for the IEEE top jobs for 1979. The Board of Directors' nominee for IEEE President is Jerome J. Suran, Manager, Electronics Laboratory, General Electric Company, Syracuse, New York. For the fourth time Irwin Feerst, 368 Euclid Ave, Massapequa, Pk, New York, will be a petition candidate for IEEE President. The Board of Directors' nominee for Executive Vice-President is Leo Young, Consultant, US Naval Research Laboratory, Washington DC. The Region 8 Committee nominees for Region 8 Director 1979-1980 are Dick C. J. Poortvliet, Benelux, and Robert C. Winton, UKRI.

I asked Jerome J. Suran for a statement about IEEE being a transnational institute and he writes: "Modern technology has demonstrated how small is planet earth. Electronic communications tie us together into a single community and knowledge has become an international commodity. Thus, the transnational character of the IEEE has become increasingly important. Not only must we encourage world-wide technical communication through our publications, but we must continue to foster cultural interchange through our technical conferences and regional activities. If the IEEE, as the world's largest technical organization, fails to grow internationally, there is indeed little hope for the rest of mankind in achieving peaceable interchange across national boundaries. Let us strengthen the transnational character of the IEEE while continuing to work within our respective national societies or

boards to meet professional needs at local levels. The concept of transnationalism is no longer an idea—it is a necessity."

In THE INSTITUTE of August 1977 (Vol 1, No 1) there is an interview with Irwin Feerst. On the international nature of IEEE he states: "I think the IEEE should exist primarily for its American members. There should be an 'A' in front of IEEE. All the rest of the societies have it—AIChE, ASCE, ASME. It hasn't hurt them. If foreign engineers can't pay the freight, they should join their own societies."

At the deadline for receipt of petitions for Constitutional amendments which appear on the election ballot this year one such petition had been received in New York. It states that all members of the Board except the two surviving Past Presidents most recently retired from that office shall be currently elected by the voting members. Also, all Corporate Officers shall be elected by the voting members. I think that the election system of today is fine except for the election of the Director of Region 10. However, it seems that this Director will be voted in in the same way as Directors of Regions 1-9 in the near future. Therefore I intend to vote "no" to the petition.

Usually only about 35 per cent of the membership votes. Less than 20 per cent may therefore decide about the future of IEEE. So, **please vote and vote wisely!**

E. FOLKE BOLINDER

REPORT FROM THE REGIONAL DIRECTOR



The 31st Region 8 Committee Meeting was held at Eindhoven, the Netherlands, on April 20 and 21, 1978. The participants were Bolinder (Sweden), Winton (UKRI), Stumpers (Benelux), Vander Vorst, Arink (part-time), Maanders (part-time), de Vrijer (part-time) (Benelux), Williams (UKRI), Poortvliet (Benelux), Voge (France), Stubb (Finland), Kleen (Germany FR), Baal Schem (Israel), Civalleri (N. Italy), Sowinski (Poland), Gopegui (Spain), and Davies (UKRI). Invited were Mr R. K. Asdal, Director of Field Services, IEEE, New York, Mr J. A. Greefkes, Vice-

President COMSOE, and Prof R. J. F. Filipowsky, Univ. of S. Florida. The Meeting expressed great concern about the IEEE Headquarters—Region 8—EUREL relationship in connection with the IEEE sale of the Proceedings of EUROCON '77. A constructive method for handling this problem must be worked out. The relationship between Region 8 and EUREL is excellent today. An extension of the Region 8 boundaries to incorporate the whole of Africa was discussed. There was no enthusiasm for the suggestion but a genuine willingness to help during a transition period when a new Region is set up.

The France Section still has great problems in leadership, economy, and student activities. No solution is at hand for the moment.

The Israel Section has offered to organize EUROCON '83. Kuwait now has 50 members, sufficient to form a Section there. Difficulties with the Austrian national society have prevented the formation of a Section in Austria.

The next Region 8 Committee Meeting will take place at Split in Yugoslavia on November 11-13, 1978.

The 1978 Student Paper Contest was held at the Technological University of Eindhoven on April 21. The R8 Student Activities Chairman Prof A. Vander Vorst reports on the Contest in this Newsletter. A big problem is how to induce more students to submit papers to the Contest. The problem has been recognized by Mr Richard Aseltine,

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

Manager, Student Services, New York, who recently obtained \$2500 from the Life Member Committee for a promotional effort directed toward publicising the 1978-79 Student Paper Contests in the ten Regions.

On May 17 I attended a Long Range Planning Committee (LRPC) Meeting in Boston, Mass, USA, and the next day a Regional Activities Board (RAB) Meeting. On May 22 three events took place, namely an Annual Assembly Meeting, a Board of Directors (BoD) Meeting, and an IEEE Awards Reception. The BoD Meeting continued on May 23, and the next day I attended a Nominations and Admissions (N&A) Meeting. The Directors were also invited to the opening ceremony of the ELECTRO 78 Conference and to visit the lectures and the exhibition. Lately the greatest increase of membership has taken place outside the United States. I therefore suggested, both at the LRPC meeting and the RAB meeting, that a Vice-President of International Affairs should be appointed to the Executive Committee.

During the Boston meetings I tried to find a solution to the problem of the IEEE sale of EUROCON Proceedings by talking to influential IEEE people, but to no avail. I therefore went to the Executive Committee Meeting on May 21 and by kind permission by the President Dr Getting I was able to present our R8 problem informally to the Members of the Executive Committee. The "hearing" terminated with a discussion but no constructive solutions resulted. However, later on both the Technical Activities Board Chairman Eric Herz and the RAB Chairman Paul Carroll offered their help. Apparently, if EUROCON had been an all IEEE event, then everything would have been simple. Now new guidelines have to be worked out for this transnational matter in which we in R8 seem to be pioneers. A Vice-President of International Affairs is highly desirable. The "Gibson formula" for calculating the regional rebates has been modernised by the Chairman of the RAB Finance Committee, Dr Cyril Tunis. It appears that the R8 rebate will increase somewhat.

During the N&A Meeting chaired by Prof R. M. Saunders, the twelve members discussed candidates for many top jobs in IEEE.

An action has started to create a new Section in Russia.

There seems to be some interest in Rumania and Hungary in establishing Sections.

In the previous Newsletter of April 1978 I made a plea to the Members to send me material on existing professional activities of their national societies, for example, code of ethics, implementation of the code of ethics, unions, registration, etc. A British colleague of mine has been kind enough to send me some interesting material on technical activities of IERE and IEE. It appears that the word "professional" is used in connection with technical activities in Great Britain and with non-technical activities in the United States. Quite confusing! By the way, I wonder how many R8 Members know that the impressive abbreviation "USAB" stands for "United States Activities Board" which is the IEEE organization that deals with professional activities (in the American meaning) inside the United States and which is paid for by the \$10 assessment that each American Member pays in addition to the regular \$35 membership dues.

The Student Branch at Katholieke Universiteit te Leuven, Heverlee, Belgium, Counselor Prof R. Van Overstraten and Student Branch Chairman Jan Staar, have been awarded a Vincent Bendix Award Grant for the 1977-78 academic year. Also, the Student Branch at Catholique Université de Louvain, Louvain-la-Neuve, Belgium, Counselor Prof M. J. Declerco and Student Branch Chairman Guy Bertels, have received the same award for 1977-78.

Congratulations on a job well done.

Gothenburg, Sweden, June 5, 1978.

E. FOLKE BOLINDER

Nominations for Region 8 Director 1979-80

STATEMENTS BY THE CANDIDATES

Dick C. J. Poortvliet

Chief Engineer, Research Unit for Clinical Neurophysiology, Wassenaar, The Netherlands.

The present Regional Director stated that because of its different languages, religions, historical backgrounds and political and educational systems, Region 8 is rather unique. Being a Regional Director of this Region demands the respect of these differences and an understanding of how to imply the transnationality of the IEEE. It is a well known fact that in many countries the national engineering societies and student associations are covering the national needs extremely well. Therefore, IEEE should never go into competition with the national engineering societies, but by using the transnational concept, add a dimension to international understanding. Co-operation between the national societies and their European organization EUREL is therefore vital.

Good examples of such a co-operation are the EUROCONs, where engineers from all over the world can meet. EUROCON should also be the place where students from Region 8 can meet and present papers. This can stimulate the creation of Student Branches, where the students can contribute to the transnational aims of the IEEE. The Student Activities Chairman therefore has an enormously important task, because the student members of today form the backbone of the IEEE of tomorrow. Organization of student paper contests and student exchanges between countries in Region 8 are therefore of great value. The various sections in Region 8, each with its own character, are the vital organizations of the Region. They operate in most cases in close co-operation with the national societies and, on the other hand, they can stimulate membership development. Therefore, in Regional Committee meetings their activities should be discussed extensively. Finally, the Region 8 Newsletter should be mentioned, because I believe it is the connecting link between all members of the Region.



D. C. J. POORTVLIET

Robert C. Winton

Consultant, London, England.

From my experience, based on service on the Region 8 Committee since its inception in 1962, I see the following as the Region's major needs, and shall give them special attention.

Finance: to prevent further reduction in the real value of the resources allocated to Region 8 and to restore them at least to their previous level.

Sections: to determine special Section needs and the action necessary to meet them.

Newsletter: to use the newsletter as effectively as possible to provide information on IEEE affairs, especially about issues on which members vote; to increase the revenue derived from advertisements and inserts.

Students: to stimulate recruitment; to investigate the possibility of introducing a Postgraduate Student Papers Contest to supplement the existing contest for undergraduates.

Transnationalism: to support and further develop the transnational role of the IEEE in harmony with the interests of national societies.

Regional Committee: to make Regional Committee meetings as cost effective as possible; to evolve a long-range plan for Regional development.

Director's Notes: to introduce Directors Notes to supplement the newsletter.

R. C. WINTON



(NOTE: The statement in the opposite column by Dick Poortvliet failed to reach New York HQ before the deadline but is reproduced here for the information of members of Region 8.)

The Open Order Plan (OOP) for automatic distribution of non-periodical publications has been expanded to include a new sub-option for the ordering of conference records only. Conference records are now divided into eight categories, broken down primarily by technical divisions. Subscribers may choose to order one or any combination of these categories. OOP was devised as an automatic subscription order system to be used primarily by libraries and institutions.

A substantial increase in the dissemination of technical information presented at conferences is being considered by the Technical Activities Department. The TAB Meetings Committee will be addressing this problem and related financial considerations which the TAB Financial Committee will analyse. The outcome of these considerations will be announced shortly.

Guide Book Available. The Field Service Department has made available a new Guide to Field Services, which describes Headquarters' services to the geographic units. The guide is designed for officers and is used primarily in the Region/Area workshops. It can be obtained upon request from Robert Asdal at Headquarters.

Conference Records on Microfiche. The various IEEE Groups, Societies and Councils publish approximately 150 conference records each year. Henceforth, all records will be available on microfiche at the same price listed for the printed editions. The microfiche records are mailed first class; this assures prompter delivery than for printed copies, which are mailed at book rate. Conference records, in printed or microfiche editions, may be ordered from the IEEE Service Centre, 445 Hoes Lane, Piscataway, NJ 08854.

Student News. To increase participation in the student paper contests, thanks to IEEE Life Members, the Student Services Department will create a special promotional programme to begin this fall. The Life Member Fund Committee, at its May meeting, provided \$2500 to support this promotional programme designed to get more students involved.

On the theme of Branch planning, officers and counsellors should note: October 15 is the deadline for receipt of Annual Plans; November 15 is the deadline for receipt of Bendix proposals. Promotional material for all Branches will be mailed in August, so that an active promotional campaign can be planned to begin at fall registration. For help, write to Richard Aseltine, Manager of Student Services, at Headquarters.

The Student Activities Committee wants volunteers who have a particular interest in helping the IEEE Student Programme. If you or a colleague are interested, write to Richard Aseltine at Headquarters, and an information package will be sent.

At RAB's May meeting in Boston, Region 3 Student Representative Julie Ellis articulated the professional needs of students. She reported that among engineering students professional awareness is low. They need information on factors related to first-job possibilities as well as on professional responsibilities of engineers. A strong need is also felt for more Student Branch/Section interaction. Julie Ellis's report related to an SAC proposal, now under study, for increasing the professional awareness of students.

EUROCON-77 Proceedings. EUROCON-77, May 3-7, 1977 in Venice, Italy, was the third in a series co-sponsored by IEEE Region 8 and a federation of national societies in the area. There were unfortunate delays in shipping copies of the Proceedings to IEEE Headquarters but EUROCON-77 has now reached the USA. In addition to the normal distribution through the Open Order Plan there are copies available for single copy sales. The list price is \$50.00, with a 25 per cent discount for IEEE members in US, Canada and Italy, 50 per cent discount for IEEE members elsewhere.

The EUROCON-77 Proceedings total more than 1300 pages and carry full papers covering a wide range of communications topics, as illustrated by these session titles:

Communications in Large Power Systems.

The integration of communications into surveillance and control equipments in large industrial systems which produce or consume electric power.

New Developments in Communications.

Service systems and technologies.

Communications and Computers.

The mutual influence of communication and computer technologies in producing new systems.

Communications and Signal Processing in Medicine.

The role of electrical communication in medical services.

Communications in Developing Countries.

The effect of the growth of communications in the developing countries.

Orders should be sent to: IEEE Service Centre/SPSU, 445 Hoes Lane, Piscataway, NJ 08854.

Acoustics, Speech & Signal Processing Society

Prof Dr-Ing P. Noll and Mr R. Zelinski have been awarded the Senior Award of this Society for their paper "Adaptive Transform Coding of Speech Signals" published in the IEEE Transactions on Acoustics, Speech and Signal Processing (IEEE Trans. ASSP, Vol. 25, No. 4, 1977). This paper describes an efficient method for coding speech signals in the low bit-rate region (8-16 Kbit/s).

The award was presented at the Society's International Conference ICASSP '78 in Tulsa, Oklahoma.

Award in International Communications

Professor F. L. Stumpers has been honoured with the IEEE Award in International Communications "for contributions to the theory and application of frequency modulation and for the promotion of radio sciences in general." The Award was created in honour of Hernand and Sosthenes Behn.

Antennas and Propagation Society

Benelux has been elected the outstanding Chapter of the Society for 1977-78. The plaque, to be held for one year, was sent to Prof E. J. Maanders of Eindhoven University of Technology via Mr Van de Capelle. It will be displayed with pride throughout the year.



A Major Publishing Event:—

IEEE Standard Dictionary of Electrical and Electronic Terms 2nd Ed.

by the Institute of Electrical Engineers.

A mammoth revised, updated, and expanded new edition of this best-selling authoritative reference of the electrical and electronics industry. It contains 20,254 entries including over 7,000 new and revised terms, 136 Laser/Maser terms, over 50 new Data Bus and CAMAC terms, numerous terms from 25 new Nuclear Standards, 377 newly debated and approved entries, and, for the first time, an extensive listing of 10,000 acronyms currently used in the electrical/electronics industry, and in government and military circles. Five years in the making, this is the most authoritative single-volume dictionary of electrical and electronics terms available anywhere. The new second edition is now an American national standard as well as an IEEE standard. It is an indispensable reference for every professional and library.

0471 04264 1 894 pages April 1978 \$31.70/£17.60

Published by IEEE Press, and distributed by John Wiley & Sons Ltd.

This title and many more IEEE publications are available from Wiley.

John Wiley & Sons Limited

Baffins Lane · Chichester · Sussex · England

MEETINGS IN REGION 8

Fourth European Conference on Optical Communication

This conference, to be held in Genoa, Italy, on September 12-15, 1978, aims to give scientists and engineers an opportunity to discuss the rapid progress in this field and the related problems in order to stimulate future developments and applications.

Reduced fees are paid by those attending who are members of IEEE. Full particulars from: Istituto Internazionale delle Comunicazioni, via Pertinace—Villa Piaggio, 16125 Genova, Italy. Telephone: 010/294683; Cable: Istincom-Genova.

International Conference on Development in Distribution Switchgear

To be held November 20-22, 1978 at IEE Headquarters, Savoy Place, London, UK. Sponsored by IEE and IEEE (UKRI Section).

The conference will cover all facets of design, manufacture, installation, testing, commissioning, operation, safety and maintenance of distribution switchgear used in industry on electricity supply networks.

Information from IEE, Savoy Place, London WC2R 0BL, UK.

Design, Application and Maintenance of Large Industrial Drives

This conference has now become a two-day colloquium. It is to be held in London and the date has been changed to November 16-17, 1978. The other information in the January Newsletter is unchanged.

Recent Advances in HF Communication Systems and Techniques

This conference will be held in London on February 27 and 28, 1979 organized by the Electronics Division of the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers Region 8, the Institute of Mathematics and its Applications, the Institution of Electronic and Radio Engineers, and the Radio Society of Great Britain.

The aim of the conference is to consider advances in the design and performance of HF systems and networks for analogue or digital signals. Point-to-point and mobile applications for land, sea and air use will be discussed.

The scope of the conference papers will cover theoretical and practical aspects of HF systems, including the following topics: Transmitter and receiver design; Active or passive antennas; High-speed data modems; Adaptive systems; Multi-user systems; Digital voice transmission; Channel coding methods; Signal processing by hardware or software techniques; Spread spectrum systems; System and channel modelling and simulation; Interference from other users.

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

Third International Symposium on High Voltage Engineering

The third edition of the International Symposium on High Voltage Engineering (ISH-79) will be held in Milan, Italy, from August 28 to 31, 1979 organized by the Milan Section of the Italian Association of Electrical and Electronics Engineers, and co-sponsored by the North Italy Section of IEEE.

The preceding two editions were held in Munich 1972 and in Zurich 1975, with an attendance of about 500 participants, and with 93 and 152 papers presented respectively.

Papers are cordially invited on the following subjects: Electric field computation and measurement; High voltage testing equipment. Measurement and testing technique; Behaviour of liquid, solid and gaseous insulation; Special applications of high voltage engineering. Researchers, engineers, scientists interested in high voltage engineering will have once more the opportunity to exchange points of view, and to get mutually acquainted with the progress of their work.

The symposium will be held in the Leonardo da Vinci Centre in Milan, and will be followed, on September 1 and 2, 1979 by a trip in Tuscany, with a visit to the outdoor testing station of the 1000 kV Project of ENEL in Suvereto.

All those interested in having more information are kindly requested to contact the Secretariat of ISH-79 at the following address: ISH-79, c/o CESI, via Rubattino 54, 20134 Milan, Italy. (Telephone: X39.2-2125323; Telex: 31097; Cables: CENTROCESI.)

Third International Conference on Trends in On-Line Computer Control Systems

The Conference is organized by the Control and Automation Division of the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institute of Mathematics and its Applications, the Institute of Measurement and Control, the Institute of Physics, the Institution of Electronic and Radio Engineers, the Institution of Mechanical Engineers and the Sheffield Centre of the Institution of Electrical Engineers.

It will be held in Ranmoor House, University of Sheffield, March 27-29, 1979.

This international conference will be the third in a series on this topic and aims to highlight recent developments and trends in the design and implementation of on-line computer control systems since the previous conference in 1975. In addition, the conference will attempt to identify new trends for the future, arising from the latest developments, relevant to on-line computer systems.

It is expected that a number of the contributions will demonstrate the impact of the microprocessor in the on-line system field since 1975. The conference will be of special interest to equipment suppliers, system designers, end users and research workers.

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

Third International Conference on Dielectric Materials, Measurements and Applications

The conference is organized by the Science, Education and Management Division of the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institute of Mathematics and its Applications, the Institute of Physics, the Institution of Electronic and Radio Engineers, and the Plastics and Rubber Institute.

It will be held at the University of Aston in Birmingham: September 10-13, 1979.

The conference is planned to interest those concerned with dielectrics and insulators and their applications in power engineering and electronic systems. The programme will therefore cover the field widely in terms of materials, frequencies and scientific and operational characteristics.

The programme will include contributions in the broad areas of: (i) Behaviour and physical principles of solid, liquid and gaseous dielectrics (including biological materials); (ii) New dielectric measurement techniques; (iii) Applications and performance of dielectrics and insulators.

The Organizing Committee invites offers of contributions for consideration for inclusion in the programme. Those intending to offer a contribution should submit a 250-word synopsis to the Conference Department on or before October 27, 1978.

The authors whose synopses 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, or correspondingly less if illustrations are included, for assessment by April 2, 1979.

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

Fourth International Symposium on the Mathematical Theory of Networks and Systems

This conference will be held at Delft University of Technology, the Netherlands, June 18-22, 1979.

Authors are invited to submit research or tutorial papers on any aspect of MATHEMATICAL THEORY OF NETWORKS and SYSTEMS.

Contributions in all areas of mathematical network and system theory including Algebraic System Theory, General System Theory, Analysis of Non-linear Systems, Distributed Systems, Large-Scale Systems, Operator Theoretic Methods in Networks and Systems, Stability Theory, Fast Algorithms, Stochastic System Theory, Estimation Theory, Topology, etc. . . . are welcome.

Papers should not be longer than 20 pages A4 format, 1½ spacing, should be headed by title, name(s) of author(s) affiliation(s) and should be submitted in duplicate, prior to January 1, 1979 to:

Prof P. Dewilde	Prof W. A. Porter
Dept. of Electrical Engineering	Dept. of Electrical Engineering
Delft University of Technology	Louisiana State University
Mekelweg 4	Baton Rouge
2600 GA Delft	Louisiana 70803
The Netherlands.	USA.

Dates to remember: Submission of papers—January 1, 1979; Notice of acceptance—February 1, 1979; Submission of Final Manuscript—March 1, 1979; Symposium begins—June 18, 1979.

Sponsored by: The Department of Electrical Engineering, Delft University of Technology, in association with IEEE Region 8, NERG (The Netherlands Society for Electronics and Radio Science) and IEEE Benelux Section.

Third World Telecommunication Forum

This Forum will be held in Geneva, Switzerland, September 23-26, 1979. It will focus on "The integration of the world's communications network—Technologies of the eighties". Highly technical and scientific in character and yet at the same time universal, Forum 1979 is recognized at the world's leading congress of communications specialists. It will be sponsored by the International Telecommunication Union (ITU) on behalf of its 153 Member countries in association with a great number of national and international professional engineering societies and scientific institutions.

Publications in LSI Based Computer Architectures

Microcomputer Architectures

edited by JEAN-DANIEL NICOUD, JAN WILMINK and RODNAY ZAKS

1978 xiv + 280 pages
Price: US \$39.25/Dfl. 90.00
ISBN 0-444-85097-X

The proceedings of the EUROMICRO 77 Conference cover the broad field of microcomputer architectures, including microprocessors, microprogramming, multiprocessor systems and software support. Applications range from computers embedded in consumer devices, to sophisticated fault-tolerant systems.

These proceedings consist of both theoretical contributions and application papers, and with each group of two or three papers, the introduction given by the Session Chairman is included.

As the successor of the proceedings volume of the Second EUROMICRO Symposium, held in Venice in October 1976, this book illustrates subsequent trends, now more particularly towards microprocessor architectures. The more extensive use of one-chip microprocessors, both as input-output controllers, and as part of a processing unit including many processors, is clearly demonstrated.

Microprocessing and Microprogramming

edited by J. WILMINK, M. G. SAMI and R. ZAKS

1978 xx + 336 pages
Price: US \$32.75/Dfl. 75.00
ISBN 0-7204-0557-2

Amidst the wealth of papers included, the recent dramatic advent of LSI and MSI techniques is particularly well reflected in the papers on special custom-tailored hardware and software, which shows that the hardware-software balance is exploited deeper than ever before. In many papers the synchronization of multi-processor systems is a main topic. Software support for microprocessor systems, the application of microprocessors in the fields of data transmission and signal processing and the increasing importance of microprogramming, due to the present availability of user mi-

croprogrammable computer systems and bit slice processors, are only a selection of the subjects treated. This report, the substantially enlarged version of the Proceedings of the 2nd Symposium on Microprocessing and Microprogramming organized by EUROMICRO in Venice, October 1976, is required reading for anybody involved in any way in the fields of microprocessing and microprogramming.

Fundamentals of Structured Hardware Design

A Design Language Approach at Register Transfer Level

by REINER W. HARTENSTEIN

1977 xvi + 324 pages
Price: US \$36.95/Dfl. 85.00
ISBN 0-444-85007-4

This book introduces an easily readable register transfer level hardware design language, and explains its applications in the description of digital computer structures, subsystems, and integrated circuit components. In parallel, it also introduces a block diagram language which is directly mapped into the symbolic version of the language.

The second part of the book, after discussing elementary use of the language, develops advanced methods of writing structured representations of complex data paths, and wiring patterns. It also examines modular design and the description of complex structures at different levels of abstraction. Finally, the book describes a very concise and highly user-oriented behavioral specification of digital integrated circuits and of LSI circuits.



North-Holland Publishing Co.

P.O. Box 211,
Amsterdam, The Netherlands

or

52 Vanderbilt Avenue,
New York, N.Y. 10017, U.S.A.

Minicomputer Software

edited by J. R. BELL and C. G. BELL

1976 xiv + 334 pages
Price: US \$32.50/Dfl. 75.00
ISBN 0-7204-0437-1

Eight papers, by leading experts, provide a wealth of information on the design and application of minicomputer software while in-depth panel discussions offer a stimulating interchange of viewpoints and insights by teachers, users and software designers.

Each section of the book is self-contained so the reader may concentrate on those parts of direct interest and value to himself.

"All in all, 'Minicomputer Software' will repay study. While many of the papers are specialised they are nevertheless interesting and the obiter dicta which pop up unheralded in the various discussions often provide interesting side-lights to the main theme. This is partly a book for general reading and partly a book to place on the shelves for reference at the appropriate time."

Small Systems Software

Microarchitecture of Computer Systems

edited by R. HARTENSTEIN and R. ZAKS

1975 x + 294 pages 20 tables
219 illus. over 300 lit. refs.
Price: US \$26.00/Dfl. 60.00
ISBN 0-7204-2842-4

This volume contains the papers presented at the First EUROMICRO Symposium.

Particular emphasis was placed on the need to bridge the communication gap between the hardware and software engineering sectors, and between other specialized disciplines such as operating systems theory, computer organization, logic design, and design and application of LSI microprocessors. A number of papers also report on recent developments in the organization of micro-programmable hardware.

"... certainly this set of papers is worth reading by people who are interested in microprocessors and microprogramming as a part of computer science in its truest sense or who are interested in machines based on LSI technology."

The Computer Bulletin

You are invited to submit an original, unpublished paper reporting ideas or experiments relevant to the Forum 1979 theme.

In addition to 15 plenary and parallel sessions with some 150 invited and carefully selected papers, one special session of the Forum will be devoted to the celebration of the 50th anniversary of the International Radio Consultative Committee (CCIR). Present and future activities of the CCIR will be described in technical contributions read by world leaders in this field.

One-page abstracts (100-200 words) should be submitted before September 30, 1978. If the abstract is accepted by the Paper Review Board a full paper, the text of which should not exceed 6,000 words, will

be expected by January 15, 1979 for reproduction in the World Telecommunication Forum Proceedings. Papers should be submitted preferably in English, French or Spanish and the oral presentation should be planned for 20 minutes. Authors of accepted papers will be required to submit preliminary versions of the visual material to be used at the presentation. They will receive forms and instructions for material to be printed in the Forum Proceedings.

Abstracts and papers should be sent to: Professor Dr F. L. Stumpers, Chairman, Technical Programme Committee, World Telecommunication Forum, NV Philips' Gloeilampenfabrieken Research Laboratories, Eindhoven, Netherlands.

NEWS OF THE SECTIONS

GERMANY (WEST) SECTION

Dr-Ing Peter Noll, Professor at the University of Bremen, and Dr-Ing R. Zelinski, AEG-Telefunken Research Laboratory/Ulm, have received the Senior Award 1978 of the IEEE Acoustics, Speech and Signal Processing Society. This honour was conferred on them for their publication "Adaptive Transform Coding of Speech Signals" (IEEE Transactions ASSP, Vol 25, No 4, 1977) which describes a method for digital transmission of speech able to increase considerably the number of telephone channels without loss of quality.

The Communications Chapter (past Chairman Mr A. I. Hollander) has been dissolved on account of lack of any activities.

GREECE SECTION

The election for Section Officers was held on June 17, 1978 and the new Officers are:

Chairman: Professor Emmanuel N. Protonotarios (SM); Vice-Chairman: Professor Christos C. Halkias (SM); Secretary-Treasurer: Mr Panagiotis P. Georgiou (M); and the address of all three is National Technical University of Athens, 42, October 28th Street, Athens (147), Greece.

ISRAEL SECTION

The Israel Section of IEEE presented the Fellowship Certificate to Mr Uziah Galil at a ceremony organized by the Section's Executive Committee in Tel Aviv.

The ceremony was attended by IEEE Fellows, representatives of Government agencies and Israel industry and members of the Section's Executive Committee. In the photograph opposite, holding the certificate are Mr Galil on the right and the Chairman of the IEEE Israel Section on the left.

UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

Election of Region 8 Director. The UKRI Section has always been numerically larger in voting members than other Sections in the Region, the difference being even more marked in the early years of the Region and, to enable the smaller Sections to have an opportunity to furnish a Director, it was agreed soon after the formation of the Section that a UKRI candidate for election as Regional Director would only be proposed at every third election. This election is such an occasion.

Professional Communication Chapter. On November 9 at Imperial College (Electrical Engineering Department) at 6 p.m. (tea 5.30), a talk will be given by Professor J. J. Sparkes of the Open University on the Communication Problem at the University. As this communication problem between the University and its widely spread students is one of the most difficult in the country, and as it appears to have been successfully solved, the talk should prove very instructive as well as being extremely interesting. Visitors to the talk will be welcome.



STUDENT NEWS

The 1978 Region 8 Student Paper Contest was held on April 21, 1978 in Eindhoven, at the Technische Hogeschool. There were entries from four Student Branches.

The jury, international as usual, was composed of five members: Dr G. J. A. Arink (Philips Medical Systems, Eindhoven), Dr A. C. Davies (The City University, London), Dr E. Maanders (Technische Hogeschool, Eindhoven), Professor T. Stubb (Helsinki University of Technology), Professor J. Tegopoulos (University of Technology, Athens).

The first winner is Mr Xavier Sinechal (Université Catholique de Louvain, Belgium) with a paper "Analyse spectrale du comportement de l'opérateur humain soumis à des conditions de stress." He wins a \$200 prize from the Life Member Fund and an extra \$250 from the Region 8 Student Activities budget to help him to organize a trip to the United States. The second winner is Mr Paul Schöbi (Swiss Federal Institute of Technology, Zurich, Switzerland) with a paper "Synchronization on binary pseudo-noise sequence". He wins a \$100 dollar prize

from the Life Member Fund. The third winner is Mr Patrick de Ryck (Katholieke Universiteit te Leuven, Belgium) with a paper "Realization of testing system for charge coupled devices with matrix structure". He wins a \$50 prize from the Life Member Fund. The four contestants were invited to present their papers in Eindhoven, at the cost of the Student Activities in Region 8. The three winning papers will be published in the IEEE Student Papers Book.

There will be a contest again in 1979. Now is the time to select the best paper in the branches ready to compete. The new Student Activities Chairman is ready to give you information whenever necessary and will send information in due time about the rules and the deadline. His name is Professor A. S. Vander Vorst (Laboratoire de Télécommunications et d'Hyperfréquences, Batiment Maxwell, B-1348 Louvain-la-Neuve, Belgium). Please do not hesitate to contact him if you need any information or help.

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