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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS INCORPORATED

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1983

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No. 62 MAY 1983

7th DECEMBER '83 - AFRICON '83 - 9th DECEMBER '83

THE KENYATTA CONFERENCE CENTRE, NAIROBI, KENYA

The response to AFRICON '83 has already exceeded the most optimistic expectations of the organisers. When the founders of the recently-formed Kenya Section proposed a major international conference in Nairobi they undoubtedly conceived an idea whose time had come. Offers of papers and interest in participating have come from countries ranging from Sweden to South Africa, and from India to the USA

AFRICON '83 will be held in the Kenyatta Conference Centre, Nairobi, Kenya, on 7-9 December 1983. The Conference puts 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 electrical technology in Africa; preparedness to meet user needs nationally and internationally with existing and future products and systems.

All those concerned with marketing to Africa and with technical developments in African countries should seriously consider attending AFRICON '83. Participants are expected from many parts of Africa, and in addition to the interest of the formal sessions, the informal contacts which are a major feature of every conference therefore promise to be particularly useful.

As an indication of the widespread interest in the programme, the following are the countries from which offers of papers have come -Canada, Egypt, France, Federal Republic of Germany, Kenya, Nigeria, The Netherlands, UK, USA. In addition, the Indian Government will send a delegation of about ten members from the Government and from industry, and is also arranging to offer a number of papers which will draw attention to the possibilities of the Indian electrical and electronics industries to meet the needs of African countries. A total of 64 papers had been offered by mid-March; the subjects attracting the most attention are electrical power engineering and communications.

IEEE Technical Societies have expressed an encouragingly high level of interest. The following Societies are sponsors of AFRICON '83, in addition to Region 8 and the Kenya Section - the Society for Communications, the Electron Devices Society, the Society for Industry Applications, and the Society for Power Engineering. In addition, the Computer Society has been invited to become a sponsor.

Mr Philips Okundi, Deputy Managing Director of the Kenya Posts and Telecommunication Corporation, has accepted an invitation to be Conference Chairman, and will also present a paper on capital telecommunications development in Kenya and Africa.

Associated with AFRICON '83 will be an Exhibition of components and systems related to the themes of the Conference. In addition a social programme and technical visits will be provided if there is sufficient demand.

Further information, registration forms, and the preliminary programme, are available from Mrs R Mischler, IBM Research Laboratory, Saumerstrasse 4, CH-8803 Rueschlikon, Switzerland. Telephone: 01 724 2727. Telex: 53-626.



Cheetah cubs in the Nairobi National Park near to the Kenyatta Conference Centre

CALLS FOR LECTURERS

IEEE members are invited to apply for participation in a 1983 Distinguished Lecture Tour which will include all or some of the following countries: Brazil, Chile, Colombia, Mexico, Peru and Venezuela.

Participants are expected to have recognized competence in some areas of electrical or electronics engineering or related arts or sciences. The Tour is of approximately two weeks' duration and will begin in late November 1983. Participants are expected to meet their own expenses. Members who wish to be considered should advise Dr. M. E. Van Van Valkenburg, Chairman IEEE Transnational Relations Committee, c/o Ms. Barbara Ettinger, TRC Administrator, IEEE, 100 East 47th Street, New York N.Y. 10017 USA, not later than 1 August, enclosing details of their education, qualifications, experience, and the technical topic on which they are prepared to lecture.

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REPORT FROM THE NEW REGIONAL DIRECTOR



Karsten E. Drangeid Director Region 8 1983-84

making this suggestion I should add that of course I shall continue to welcome letters from any of you.

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received great pleasure from the

many letters of congratulation which

I received following my election, and I

much appreciated the good wishes which

members sent me. However, a number of

letters contained problems and com-

plaints, some of which I had to refer to particular members of the Region 8

In an attempt to improve the service

which members receive, may I suggest

that where appropriate you communicate

in the first instance direct with the Com-

mittee member to whom has been dele-

gated the particular responsibility con-

cerned - a list of these is given below. In

I appeal to members to urge their Sections to arrange some form of Centennial celebration during 1984. If you are prepared to help in arranging such an event, or if you have any ideas on what might be done, please get in touch with your Section Chairman or with the Region 8 Centennial Co-ordinator, Professor E. Folke Bolinder (address below).

Committee.

As I watch the idea of AFRICON '83 develop into a live conference I find it is a most encouraging experience. This is the first major conference which the IEEE has organised on the Continent of Africa, and we could not know in advance what support it would receive. Now I can report that several IEEE Technical Societies are actively supporting AFRICON '83; there is growing interest among African countries and a high proportion of papers from these countries; considerable interest has also come from other countries as far away as India and the USA. All this is very good news, and I am confident that our first venture in Africa will be a great success.

There are a few Sections where activity is below what I would have expected. In some cases this is due to special circumstances, but in others there appears to be some lack of interest among members. If any member feels that he would like to encourage more activity in his Section, I would suggest that he writes to his Section Chairman, or to me. One of my principal objectives is to provide each member with as good a service as we can. With this in mind, may I also ask members who are not in a Section, but would wish to see one formed covering their area and are prepared to assist in founding it, to let me know.

KARSTEN E. DRANGEID Rueschlikon, Switzerland

REGION 8 Committee members with delegated responsibility

Awards & Fellows and Centennial Co-ordinator – Professor E. Folke Bolinder, Chalmers University of Technology, Division of Network Theory, S-41296 Gothenburg, Sweden; Continuing Education – Professor K. F. Goser, Fern-Universitaet, Bauelemente der Elektrotechnik, PO Box 940, D-5800 Hagen 1, Federal Republic of Germany; Conference Co-ordination – Dr. J. Baal-Schem, PO Box 1205, Holon 58112, Israel; Membership – Dr. Peter Peiser, ENEL-DSR, Via G.B. Martini 3, I-00198 Rome, Italy.

CONFERENCE CO-ORDINATION ACTIVITIES IN REGION 8

Conference activities in Region 8 are aimed to provide IEEE members in Europe, the Middle East and Africa with greater opportunities to participate in technical meetings and visit professional exhibits, in order to get acquainted to advances in electrical and electronics engineering and to present and discuss research findings and applications.

The Region 8 Director and Committee have always fostered Conference activities and in 1981 a Regional Conference co-ordinator was appointed in order to gather and diffuse information on major Conferences in the Region and to assist in the planning and promoting of Major Regional Conferences.

Since recent years, the Region 8 area has become the scene of intense activities in Conferences, Symposia and Seminars, organized or sponsored by the IEEE. With EUROCON and MELECON alternating, IEEE Region 8 organizes now one major regional Conference every year and this year a third regional Conference, AFRICON, will be established. Europe is also the venue of International Symposia and Seminars, organized or sponsored by Region 8 entities and this year the Hannover Fair will host for the second time a Tutorial Week, jointly sponsored by the IEEE Computer Society and Region 8.

Due to efforts of Region 8 Directors and IEEE members, the number of major Conferences organized by IEEE Societies and held in Region 8 is constantly growing. During IEEE Centennial Year, The International Magnetics Conference (Intermag '84) and the International Conference on Communications (ICC '84) will be held in Europe. This trend contributes to the multinationality of the IEEE and to better contacts among IEEE members from different countries.

The growing activity in Conferences is reflected in the listings of the Electrical and Electronics Engineers Calendar of Conferences and Exhibitions in Europe, the Middle East and Africa, issued by the Regional Conference Co-ordinator twice every year and distributed with the Regional Newsletter. By agreement with EUREL (the Convention of National Societies of Electrical Engineers of Western Europe) this Calendar has beome the Official timetable of events of both IEEE Region 8 and EUREL. The fourth issue of the Calendar is distributed with this issue of the Newsletter. The information for the Calendar is



A Century of F

IEEE CENTENNIAL



Next year sees the IEEE's 100th anniversary. Celebrations will be taking place in every Region to mark "A Century of Progress". A glance at the list of "Meetings in Region 8" shows that the world of electronics is still progressing and that this, in all probability, is merely the *first* 100 years. Various activities to celebrate the centennial will be held throughout Region 8 and information about them will be carried in this Newsletter. A special edition of the Newsletter is to be published to mark the anniversary.

provided by Section Conference Co-ordinators appointed by each IEEE Section in the Region, who assist the Regional Conference co-ordinator in carrying out his responsibilities.

The major Regional Conference in 1983 is MELECON '83, the second Mediterranean Electrotechnical Conference to be held in Athens. Greece on 24-26 May 1983. More than 550 papers will be presented in up to five parallel running sessions, covering topics in Energy and Information Systems and highlighting applications of Electrotechnology which are of special interest to Mediterranean countries. It is interesting to note that the majority of papers come from Mediterranean countries and covers subjects of special interest for the region. Contributions to the programme include scientists and engineers who seldom are able to participate in International Conferences due to travelling distances, emphasizing the considerble importance of organizing Regional Conferences. As in EUROCONs and in the former MELECON '81, special attention is given to students and younger participants. Within the framework of MELECON '83, a Young Engineer Contest will be held, as well as the IEEE Region 8 Student Paper Contest. MELECON '83, chaired by Professor EN Protonotarios and organized by the Greece Section of IEEE promises to be a very successful Conference, paving the way for the next MELECON '85, to be held in Spain.

In order to assist in the development of Electrical and Electronics Engineering in Africa and to enable for additional professional opportunities for IEEE members and other interested individuals in Africa, the first IEEE Conference for all-Africa will be held in Nairobi, Kenya on 7-9 December 1983. The focus of the Conference will be meeting the needs of Africa for electrical technology in the next five to ten years. The Conference is co-sponsored by Region 10 as well as by several IEEE Societies and IEEE President Owens has been invited to participate, along with other lecturers from the US, Europe and Africa.

It is hoped that these Conferences, along with the wide spectrum of Conferences, Symposia and Seminars planned for 1984, will provide each member of the IEEE in Region 8 with opportunities to advance his or her professional knowledge. Dr. J. Baal-Schem

Regional Conference Co-ordinator

REGION 8 CONFERENCE CALENDAR

Enclosed with this newsletter is the 4th edition of the Region 8 Conference Calendar. Its aim is to provide an accurate and up-to-date list of all conferences and exhibitions of interest to members in Europe, the Middle East and Africa. It is hoped that this will not only assist individuals in their future planning but will also help avoid duplication of conference topics by giving notification of events up to two years ahead. The calendar is issued twice yearly with this newsletter and entries are not confined to IEEE sponsored conferences. Information should be sent to Dr. J. Baal-Schem, Conference Co-ordinator, PO Box 1205, Holon 58112, Israel.

REGION 8 PRESENTATION

A special presentation was made to Mr. R. C. Winton who has been Secretary of Region 8 for a number of years.

Past and present committee members are well aware of his invaluable service which has contributed so much to the efficient running of the



NEWS FROM MOROCCO

News from Morocco

A group, most of them IEEE members including the leader Prof. Mohamed Najim, in the Laboratoire d'Electronique et d'Etude des Systèmes Automatiques (LEESA), has received the Abdulhamed Shuman Prize of \$9,000. LEESA is situated in Rabat, Morocco.

The Prize was given in recognition of work to promote automatic control in local industry. Prof. Najim received it in January in Amman, Jordan, from Abdulmajed Shuman, Head of the Arab Bank which created the Abdulhamed Shuman Foundation, which awarded the Prize. The late Abdulhamed Shuman was born at Beit-Hanina, Palestine, in 1890 and founded the Arab Bank. His son, Abdulmajed Shuman, who is now heading this bank, created the Abdulhamed Shuman Foundation. Among the aims of the Foundation is to encourage young Arab scientists who developed scientific activities within their country.

OBITUARY

Professor Dr. Fritz Borgnis

Professor Doctor Fritz E. Borgnis

Professor Dr. Fritz Borgnis died after a short illness on 27 August last year. He was 75 years old but until a few days before his death he was at work at the ETH (The Swiss Federal Institute of Technology) in Zurich.

He was born in Mannheim and studied both electrical engineering and physics at the Technical University of Munich graduating in 1929 and achieving his doctor's degree in 1936. In 1940 he became a candidate professor with a thesis on electromagnetic oscillations in dielectrics. After a short term in industry he went to the University of Graz, Austria, as a research associate – later as Dean of the Department of Technical Physics.

Between 1948 and 1950 he worked in Switzerland in industry and as a lecturer at the ETH. He spent the next seven years in the USA as a research scientist but was in demand as a guest professor at many universities. Returning to Europe in 1957 he became Director of Research at the Philips Laboratories in Hamburg (FR Germany) until 1960 when he accepted the post of Director of the Institute of HF Electronics at the Federal University of Zurich where he remained until he retired in 1977. However he still kept his office at the ETH where he followed some of the projects he started and was greatly valued as a consultant on high frequency problems.

A list of some 70 books and papers shows his wide interest in Applications of Maxwell Theory to problems of wave propagation in dielectics and in ionized gases, propagation of acoustic and e.m. waves, electron optics etc. His lectures were well known for their clarity and he was appreciated as a professor, as a director and as a colleague. His interests were not only those of a physicist and engineer but also of the humanitarian and in the future development of our civilization. He believed in and worked very hard for international co-operation.

We will all miss him, but our loss cannot be compared to that of his wife, for over 20 years, Mrs. Gerda Borgnis whom we condole most sincerely.

region and it was fitting that he was presented with an electric golfball typewriter. The picture shows Bob Winton (left) at the ceremony with Professor Walter E. Proebster (Immediate Past Director, Region 8) who made the presentation on behalf of the committee.



4th World Telecommunication Exhibition October 26 to November 1, 1983 Geneva's new Exhibition and Conference Centre

where the international communications community meets to see and discuss the broadest range of systems and products at the world's largest, most prestigious and only universal communications show...



OBITUARY



Emily Sirjane "not just a member of staff but also a friend"

It is with the most profound regret that I record the death of Miss Emily Sirjane not long after her retirement from the IEEE New York staff. During a considerable period of her 34 years' service, first with the Institute of Radio Engineers (IRE) and then with the IEEE, she was closely concerned with the affairs of Region 8.

In the early days of the Region, as I well recall, she had endless patience with me and with others for whom very little of our work with the Institute was at that time routine, and for whom a great deal was new and needed explanation. Explanation, queries, and problems all came alike to Emily; she handled them with the greatest efficiency, and in the process she became not just a member of staff but also a friend.

The greatest tribute which those of us who knew Emily can pay her is to remember her example and attempt to reach the same standard of devoted service. My dear friend Emily – we were indeed fortunate to know you.

BOB WINTON

STUDENT NEWS

The next undergraduate student paper contest will be held in Athens, at the end of MELECON '83. Nine entries have been received, from Delft, Eindhoven and Louvain la Neuve (Benelux), Helsinki (Finland), Haifa (Israel), Madrid (Spain), Zurich (Switzerland), UKRI, and Stuttgart (W. Germany). At the same convention, the Young Engineer paper prize will be granted for the first time.

As it has been announced before, a brochure describing student activities and branches has been published. It describes organizational aspects and procedures, activities at the branch and at the Region 8 level, rules of paper contests, etc. It summarizes the historical background and contains some important addresses and forms.

For the first time, one branch will benefit in 1983 of a grant from Student Activities funds to travel abroad: the student branch of Eindhoven University of Technology is indeed preparing a trip to MELECON '83, and received financial help from the Region 8 Student Activities.

As a last news, Professor A Laloux, from the University of Louvain, Louvain la Neuve, was quite recently granted an Outstanding Counsellor award. Several nominations were entered this year in Region 8. It is very nice to have at least one of the excellent candidates retained for this award and we may certainly congratulate not only Professor Laloux but also the other candidates, with the hope that they will be selected in another year.

> Professor A. VANDER VORST Region 8 Student Activities Chairman

NEWS OF THE SECTIONS

GERMANY SECTION (Chairman: Prof. Dr. R. Saal)

Membership Development. Membership grew in 1982 by about 100, to 955. It is expected to pass the 1000 mark in 1983. Particular efforts are directed to interest students in IEEE publications and activities.

Student Activities. A first student branch was founded in Stuttgart, starting with a very successful series of lectures on VLSI Techniques. Anyone interested should contact P. Roth (D-7000 Stuttgart, University, Breitscheidstr. 21). Particular benefits include a comprehensive library of IEEE publications for each new branch (with more than 20 students) at extremely low cost.

In co-ordination with the DAAD, the IEEE also investigates possibilities to arrange industrial practice in the US or other foreign countries.

Conference Activities. In 1983 the Section supports and co-sponsors the Conference 'Gross-integration' 7/9 March, Baden-Baden), 'Elektronenröhren' (18/20 May, Garmisch-Partenkirchen), 'ECCTD '83' (5/9 September, Stuttgart), 'EUSIPCO '83' (12/16 September, Erlangen). Additionally, via Region 8 'EuMC' (5/9 September, Nürnberg) and a tutorial week on aspects of 'Measurement and Control' and 'Robotics' will be sponsored during the Hanover Fair. Major international conferences in '84 will include Intermag (10/13 April 1984, Hamburg) and ECOC (11/14 September 1984, Stuttgart).

Continuing Education. Prof. Dr. K. Goser, Gesamthochschule Iserlohn, will intensify the programme in Germany. The tutorial week at the Hanover Fair will be a starting point in 1983.

Executive Committee. Prof. Dr. Schwab, Karlsruhe, has joined the Committee to enhance the 'energy' side. The Committee met on 23/24

February at the RWTH Aachen. Problems discussed included various ways to ease dues payments (suggestions: postal-checks in dollars, combine two or more members to reduce bank overheads) and possible means to reduce the 6-12 week delays in the mailing of IEEE publications.

Member-Meeting. The ExCo meeting was combined with a meeting of members in the Aachen area. About 30 students and members joined for the evening at the Guest House of the RWTH for a buffet and discussions of IEEE-related matters. The next member-meeting is scheduled for March 1984 in Karlsruhe.

ISRAEL SECTION (Officer Elections)

The following have been elected as Section Council Members: Chairman Elect, Dr. David Biran; Secretary, Mr. Rafi Hoyda; Treasurer, Mr. Michael Snir. The Chairman-Elect will assume the position of Chairman as of 1 January 1984. I. Ish-Hurvitz will carry on his position of Section Chairman until 1 January 1984, at which date he will be past-Chairman.

KENYA SECTION (Officer Elections)

The now completed list of the new Kenya Section is as follows: Chairman, Mr. D. D. Patel; Vice-Chairman, Dr. Gordon Brown; Secretary, Mr. J. C. Rosenberg; Treasurer, Mr. R. J. Davey; Chairman Prof/Ed Activities Committee, Dr. P. A. Okelo; Chairman Student Activities Committee, Dr. P. C. Egau.

MEETINGS IN REGION 8

Tenth Annual International Symposium on Computer Architecture

This Symposium is sponsored by: IEEE, ACM, EUROMICRO and National Swedish Board for Technical Development, and will be held at the Royal Institute of Technology, Stockholm, Sweden, 13-17 June 1983.

Tutorial Day - 13 June - Database Machines (D J DeWitt, USA)

- The Migration of Function into Silicon (D Hammerstrom, USA)

Symposium – 14-16 June – Keynote Speech by Prof. Maurice Wilkes, and eleven specialized sessions.

Special Day on Applied Artificial Intelligence and its Influence on Computer Architecture, 17 June, featuring invited presentations and a panel discussion.

- An Overview of the Next Generation Computer Project (K. Fuchi, Japan)

The New Generation of Computer Architecture (P. C. Treleaven, GB)
Architectural Research of the Next Generation Computer Project (S.

Uchida, Japan).

Eckert-Mauchly Award Presentation.

Further information from the Symposium Secretariat: Computer Architecture, c/o Stockholm Convention Bureau, Jakobs Torg 3, S-111 52 Stockholm, Sweden. Telephone: +(468) 23 09 90. Telex: 11556 Congrex S.

International Symposium on Fault-Tolerant Computing

The Thirteenth International Symposium on Fault-Tolerant Computing, sponsored by the Technical Committee on Fault-Tolerant Computing of the IEEE Computer Society, in co-operation with the Italian National Council of Research, the IFIP Working Group 10.4, the IEI CNR, the AEI SIG on microelectronics, the Politecnico di Milano, and Telettra SpA, will be held from 28 June to 30 June 1983 at the Palazzo Ex-Stelline, Corso Magenta 61, Milan, Italy.

The purpose of the Conference is to provide a major forum for technical interchange on every significant aspect of fault-tolerant and reliable computing.

The Conference Programme will include 76 papers from 16 countries in 25 sessions entitled: Fault-Tolerant Systems, Testable Arrays, Recovery, Interacting Automata, Test Generation, Experimental Evaluation, Software Reliability Evaluation, Self-Checking Circuits, Synchronization Protocols, Robust Programming, On-Line Monitoring of Systems, Self-Testing, Fault-Tolerant Software, Fault Modelling and Testing Tools for VLSI, Reliability Modelling and Evaluation, Fault Location and Error Correction, System Level Diagnosis, Coding Techniques for Memories, Microprocessors Testing, Telephone Switching Systems, Design and Testing Aids, PLA Testing, Inter-Connection Networks, Real-Time Control Applications, Circuit Design.

Copies of the Conference Programme with detailed information on

registration and local accommodation may be obtained from: Mrs Giuliana Tedeschi, IEI del CNR, Via Santa Maria 46, 56100 Pisa, Italy. Telephone: +39 50 500159; Telex: 500371 1.

Thirteenth European Solid State Device Research Conference (ESSDERC '83)

Organized by the Institute of Physics and sponsored by the IEEE and others, ESSDERC '83, incorporating the Eighth Symposium on Solid State Device Technology, will be held at the University of Kent at Canterbury, UK, from 13-16 September 1983.

The conference will follow the established 'ESSDERC' pattern, including one afternoon set aside for excursions. A Ladies Programme will also be arranged.

To be put on the mailing list for the Second Circular and Call for Papers please contact: Mr Clive Jones, Meetings Officer, The Institute of Physics, 47 Belgrave Square, London SW1X 8QX, UK.

Conference on Networks and Electronic Office Systems

Organized jointly by the Communications Group, the Information Technology Group and the Thames Valley Section of the Institution of Electronic and Radio Engineers in association with the IEEE and others, the Conference is to be held at the University of Reading, Berkshire, England, 26-30 September 1983.

The Conference Organizing Committee invites the submission of synopses of proposed contributions on the following topics:

Network Services: Networks; ISDN, Packet-circuit switched data networks, Wide-band networks, Satellite business systems. Telephony Supplementary Services. Operator Services. Voice messaging and information services. Mobile Services. Text Services: Teletex; Viewdata; Electronic Mail; Mail Box; Facsimile. Data Services: Electronic Fund Transfer; Telemetry; Telecontrol. Visual Services. Protocols and interworking. Other Value-added Services.

Office Systems: Information storage and retrieval; Information processing; Information displays; Information Security; Local area networks and PABXs; Voice processing; Cost factors; Human factors; Choosing a suitable system; Visual services, conferencing slow scan; Ergonomics; Standards.

Further information may be obtained from: The Conference Secretariat, Institution of Electronic and Radio Engineers, 99 Gower Street, London WC1E 6AZ, UK. Telephone: 01-388 3071.

Ninth European Conference on Optical Communication, ECOC '83

This meeting will be held 23-26 October 1983 in Geneva, Switzerland. ECOC is an annual conference and is intended to provide the major international forum for the exchange of information on the progress of research and development in optical communication.

Topics of the meeting will be basic research, components technology, system engineering as well as novel concepts and applications.

Emphasis will be put on original contributions for oral presentation and poster sessions.

A limited number of invited papers will review important developments and show the state of the art for the different topics.

At the session for post-deadline papers, the very latest ideas and results will be presented. The conference language will be English.

ECOC 83 is organized by the Swiss Electrotechnical Association (SEV) Zurich, in co-operation with the Member Companies of Pro Telecom, Switzerland, the Swiss PTT, and the Swiss Federal Institutes of Technology, Zurich and Lausanne. The meeting is sponsored by the Convention of National Societies of Electrical Engineers of Western Europe (EUREL), in liaison with the Institute of Electrical and Electronics Engineers (IEEE Region 8), the Optical Society of America, the Institute of Electrical Engineers of Japan, the International Union of Radio Science (URSI, Swiss National Committee), and the Groupement de l'Electronique Suisse Occidental.

The deadline for the submission of papers was 30 April 1983. For detailed information on the conference, contact the Conference Secretary: A. Sollberger, Institute for Applied Physics, Swiss Federal Institute of Technology, CH-8093, Zurich, Switzerland.

Fourth World Telecommunications Forum – TELECOM '83

The Forum will be held from 26th October to 1st November 1983 in Geneva, Switzerland, and is designed to discuss the broad range of telecommunications systems and their universal implications. Concurrent with the forum there will be and Exhibition, a Book Fair and the Golden Antenna Film Festival.

The Forum is sponsored by: IEEE Computer Society, IEEE Antennas and Propagation Society, IEEE Aerospace and Electronic Systems, IEEE Microwave Theory and Techniques Society, IEEE Communications Society and EUREL.

For more detailed information contact: Forum '83, Place des Nations, CH-121 Geneva, Switzerland.

Conference on Real Time Control of Electromechanical Systems

The Conference, organized by the Institution of Electronic and Radio Engineers in association with the IEEE and others, is to be held at The Cavendish Conference Centre, 82 New Cavendish Street, London W1, England, on 6 and 7 March 1984.

Industrial and military innovation through the deployment of embedded computer technology has created a new generation of electromechanical systems. The demands of multi-axis control systems, which are required for modern robots, coupled with the development of Flexible Manufacturing Systems and corresponding systems in military vehicles, high performance radars and turret control, have created the conditions for rapid technological advance.

The conference will provide the first opportunity for the performance of these new computer-controlled systems to be assessed and reported on.

The Conference Organizing Committee expects to attract 200 delegates from government, academic, industrial and commercial organizations in the UK and overseas. They will be professional engineers, technicians and managers who are concerned with developing, designing, installing or using real-time control systems.

Papers are invited under the following headings:

Session (1) Topic, Fundamental Design Problems, e.g. Sampling, Word Length, Design of Servos; Co-ordinator, P. Atkinson (University of Reading). (2) Components and technique, e.g. Encoders, Transducers, Instrumentation, Power Output; M. Kinsey (Railway Technical Centre). (3) Software Engineering; W. E. Davies (Brighton Technical College). (4) Application of Computers to Military Systems; R. L. Davey (Marconi Space and Defence Systems); (5) Industrial Applications I, e.g. Robotics, FMS, Machine Tool Control, Transfer Lines; D. J. Kenner (Brighton Technical College); (6) Industrial Applications II, e.g. Continuous Plant Control, Process Control; C. Foxwell (Honeywell Control Systems).

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

Fourth Conference on Teaching of Electronic Engineering

The fourth in the series of conferences on the Teaching of Electronics in Degree Courses is to be held at the University of Hull from 27 to 29 March 1984, with the support of the Institution of Electrical Engineers, and in association with the Institute of Electrical and Electronic Engineers. The theme of the conference is The Way Ahead, and papers are now invited from all those, academics and industrialists, who are interested in the far-reaching changes taking place in Higher Education. Papers in the following topic areas will be particularly welcome: New degree schemes; second thoughts on enhanced degrees; M.Eng. courses; Methods of assessment; Effects of cutbacks and the 'new blood' initiative. Impact on teaching of Information Technology, CAD/CAM, VLSI, robotics; Professional requirements; The Engineering Council; Industrial collaboration, retraining, teaching companies; European and American contrasts.

Further information is available from the Conference Secretariat, Department of Electronic Engineering, The University of Hull, HU6 7RX, England. Prospective authors should submit a synopsis (not more than 300 words) to the Conference Secretariat by 19 August 1983. Tested strategies for successful writing and publishing from an experienced author and editor. How To Write And Publish **Engineering Papers and Reports** by Herbert B. Michaelson

This new book is the result of the author's extensive explorations into the writing of engineers and engineering students: journal and conference papers, trade magazine articles, internal technical reports, and academic theses. A unique feature is Michaelson's use of *illustrative* examples that show precisely how the writer can construct the necessary components of a good paper. The book forcefully presents Michaelson's major insights and findings: 1) that the sound engineering paper is characterized by its *logical organization*

- and clarity for its intended audience.
- 2) that an important element of the engineer's role in the professional community is *publishing*.3) that at every stage of writing and publishing, the engineer must make impor-

tant strategic choices — decisions affecting the utimate success of the paper. It is this third perspective that makes Michaelson's book unique, and a powerful tool for every engineer who needs to communicate. The book shows how writing problems can be anticipated before they arise; how document completion can be scheduled for the most opportune time; how negative criticism of reviewers can be forestalled; and how writing and thinking processes can be aided by using a computer

Because Michaelson follows his own advice, this book is a superb example of a logically structured and lucidly written document. It will be invaluable to engineering stu-dents in all engineering disciplines, including computer sciences, to engineers in industry and government, to students in technical writing courses, and to professional technical writers and editors.

1982. 155 pages. 18 illustrations Paperback, ISBN: 0-89495-017-7, \$11.95. Clothbound, ISBN: 0-89495-016-9, \$17.95.

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Pitman announce two new titles...

Reliability Evaluation of Engineering Sciences

Roy Billinton and Ronald Allan Publication January 1983/360 pages ISBN 0 273 08484 4/£16.50

Reliability evaluation is an integral part of the planning, design and operation of all engineering systems - from the smallest and most simple to the largest and most complex.

This book explains the concepts and basic techniques, without assuming a formal background in statistics, probability theory and reliability.

Tutorials in Modern Communications

Victor B Lawrence, Joseph L LoCicero and Laurence B Milstein (Editors) Publication February 1983/350 pages ISBN 0 273 08599 9/£25.00

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