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IEEE Region 8 newsletter

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
INCORPORATED

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No. 57 FEBRUARY 1982

INSTITUTE NEWS

LETTER FROM PRESIDENT ROBERT E. LARSON

Dear Friends and Colleagues in Region 8:

I am very pleased to have this opportunity to address the members of Region 8. As the president of IEEE for 1982, I am anxious to establish a dialogue with IEEE members throughout the world.

In my experience within IEEE as a society president, division director, and vice-president for technical activities, I have had many occasions to appreciate the importance of the contributions made to the IEEE by our members who live in Regions 7-10. Last year I pointed out to the technical activities board, which includes the presidents of our 32 specialized technical societies, that although only 17% of IEEE members reside in Regions 7-10, 28% of the memberships in these technical societies are held by members who live in these Regions. Thus, the IEEE members living outside the United States are joining these societies in much greater proportion than members who live in the United States. A similar comment can be made about the proportion of papers published in many of the transactions of these societies.

Now that society officers are aware of the degree of participation in their operations by residents of Regions 7-10, I have been able to obtain their support for more technical activities directed specifically towards the needs of these members. I have been able to get several societies to commit to holding their major technical conferences outside the US, and also to provide support for the technical programs of major international conferences, such as Eurocon. I hope that, as a result of these efforts, you will find IEEE serving your technical needs in a more effective manner.

In terms of maintaining direct relations with members in Region 8, I am very pleased to announce that the IEEE Executive Committee will have a meeting at EUROCON 82 in Copenhagen. Both Jim Owens, IEEE president-elect, and I will address the conference. Also, I am very pleased to announce that Jose B. Cruz, my successor as vice-president for technical activities, will hold a meeting of TAB OPCom at EUROCON. This body includes the 7 IEEE directors who represent the 32 technical societies, as well as other TAB officers concerned with the operation of these societies. By holding joint meetings between the Executive Committee, TAB OpCom, the Region 8 Committee, and EUREL, I hope to establish good communications and begin to move forward on specific programs that will benefit our members in Region 8. On a personal note, my company, Systems Control Inc., in Palo Alto, California, was purchased last year by British Petroleum. The company is now part of BP's SCICON International Group, which includes nearly



ROBERT E. LARSON
President IEEE



JAMES B. OWENS
President-Elect IEEE

3,000 employees in Great Britain, France, Germany and the Middle East. Since I now have these business connections with Region 8, I am in an even better position to interact with members there.

As your president, I pledge to continue to seek ways to better serve the interests of our members in other countries. I have a long record of consistent support for the international activities of IEEE, and I consider our transnational scope a major strength of the institute. In 1980 and 1981 I travelled to each of Regions 7-10, and I expect to do the same this year. I have met with IEEE members in all these Regions on many occasions, and I have good insight into the unique problems and opportunities for IEEE in the various countries of the world. I hope very much that you will support me as your president in 1982. It will be a great privilege to serve IEEE members from throughout Region 8, as well as the rest of the world.

Regards
ROBERT LARSON

MESSAGE FROM PRESIDENT-ELECT JAMES B. OWENS

I am in full accord with President Larson's program to support IEEE technical activities in Regions 7-10. I will participate in the Eurocon '82 program and, when president in 1983, plan to fully continue the efforts that President Larson is putting forth to enhance IEEE technical activities outside the United States.

SUBSCRIPTION PAYMENT DIFFICULTIES

Members experiencing difficulties because they have paid their 1982 annual subscription (dues) and find that their payment has not been recorded at Headquarters may find the following guidelines of assistance. They may also assist members who have not yet paid their 1982 subscription.

If you have not yet paid your 1982 subscription you should do so now. The notice accompanying the Renewal Notice gives information on methods of payment.

Follow the payment instructions carefully. In particular be sure that your membership number is written on the front of your cheque and that your name and address is included.

If you do not receive your membership card within six weeks, contact the Member Services Department, IEEE Service Center, 445 Hoes Lane, Piscataway, New Jersey 08854, USA. (telex no: 833 233 IEEE PWAY).

If you receive a payment reminder, and you have already paid, do not make a duplicate payment. Write, or preferably telex, to the Membership Services Department, giving exact details of your payment.

Put your membership number on all correspondence.

If you feel Headquarters is not dealing efficiently with your payment difficulty, contact your Section Chairman; if you do not belong to a Section, write to the Director Region 8, Professor W. E. Proebster, IBM Deutschland GmbH, Postfach 80 08 80, 7000 Stuttgart 80, Federal Republic of Germany.

If your membership has been stopped, and must be renewed, be sure to request back issues of all journals you normally receive.

REPORT FROM THE REGIONAL DIRECTOR



Prof. Dr. Walter E. Proebster
Director Region 8 1979-80

Dear Members of Region 8:
1981 has been a good year for our Region and we can look back with pride on a number of significant achievements –

- Our first MELECON Conference and Exhibition in May in Tel Aviv was attended by more than 1200 people.
- Preparations for EUROCON '82 progress steadily. The theme 'Reliability' appears attractive, with more than 250 papers submitted to the Technical Program Committee.
- Planning for MELECON '83 (Athens, Greece) and EUROCON '84 (Brighton, UK) proceeds well. Planning for MELECON '85 is starting; it will be held in the Spain Section.
- Our co-operation with the IEEE Technical Societies and with the West European national societies of electrical and electronics engineers has further matured.
- With respect to membership growth, our Region ranks first among all Regions with 11.5 per cent increase in membership in 1981 compared with the average increase, taken across the whole Institute, of two per cent.
- Two new Sections were formed: Saudi Arabia in May, and Portugal – the last West European country without a Section – in December.
- Three IEEE Field Awards were granted to our members in recognition of their outstanding achievements.

- Student activity remains high, with three new Student Branches and about 17 per cent of our membership.

For 1982 we have a number of important goals ahead of us:

- Getting IEEE publications to members more quickly.
- Continuing attention to Student Activities and to Membership Development.
- Reduction in the difficulties which members experience over dues payments.
- Success for EUROCON '82, including the associated meeting of the Region 8 Committee, and meetings of the IEEE Executive Committee, the Technical Activities Board Operating Committee, and the Executive Committee of the Convention of National Societies of Electrical Engineers of Western Europe (EUREL) with which we have close links.
- Using our resources of finance and of voluntary helpers for the maximum benefit of our members through long range planning.
- Increasing the usefulness of the Region 8 Newsletter.

I realise that what we have achieved in 1981 and what we hope to achieve in 1982 would be impossible without the voluntary help which so many of you give. I greatly appreciate your support, and I do realise that Region 8 cannot function without it. Please accept my thanks for all the time and work which you give to IEEE affairs.

I send every member my very warm wishes for happiness and success in 1982.

Sincerely,

WALTER E. PROEBSTER.

Boeblingen, Federal Republic of Germany



EUROCON '82 COPENHAGEN

The Fifth European Conference on Electrotechnics – EUROCON '82 – will be held in Copenhagen at the Technical University of Denmark on June 14-18, 1982. The Conference is arranged jointly by IEEE (The Institute of Electrical and Electronics Engineers) and EUREL (The Convention of National Societies of Electrical Engineers of Western Europe), and the Conference Steering Committee expects to welcome some 1,000 participants from all over the world at the opening ceremony performed by His Royal Highness Prince Henrik of Denmark. The Technical Programme Committee has received almost three hundred papers from 35 countries. Papers have been offered from Western European, the United States, the Middle East, Eastern Europe, and from Australia, India, Japan, New Zealand, Nigeria, Singapore, South Africa and Zimbabwe.

The Technical Programme

The theme for EUROCON '82 is "Reliability in Electrical and Electronic Components and Systems", and the Conference is structured in an Opening Session, three Plenum sessions and six more or less parallel Specific Sessions.

The opening session deals with the impact of reliability on society, on industry and on engineering. Key – note addresses on these aspects will be given by three distinguished, invited speakers:

Air Marshal Sir Herbert Durkin

KBE, CB MA, CEng, FIEE, FRAeS; Past President IEE.

"Technical and Economical Implications of Reliability".

Erik B. Rasmussen

M. Sc., Electr. Eng.; President of The Great Northern Telegraph Company Ltd. Chairman of the Federation of Danish Industries.

"The Japanese Challenge and its Impact".

Kam L. Wong

PhD EE at USC; Manager of the Design Effectiveness Operations at the Hughes Aircraft Company; co-author of a well-known textbook: "Reliability Engineering for Electronic Systems".

"A New Direction for Electronic Reliability Engineering in the 80's".

The plenum sessions deal with reliability in components and systems, in telecommunication and power, in construction and marketing – in short: The state of the Art. Six internationally known specialists have been asked to give their point of view on central areas, in which reliability plays a growing role.

In the first plenum session *F. Ohmann (D)* will talk about "Reliability in Tele-communication", and *F. H. Reynolds (GB)* will talk about "Reliability Progress in Integrated Circuits". In the second plenum session *J. A. Bubenko (S)* will comment on "Reliability Aspects in Power Systems", and *J. B. Owens (USA)* will comment on "Reliability of Nuclear Power Stations". In the third plenum session there will be a lecture by *F. Ask (DK)* on "Reliability as a Marketing Factor", and a lecture by *R. Larson (USA)* on "Reliability Aspects in Data Processing Systems".

The specific sessions contain 160 papers in all, and these papers are divided into six sessions, the headlines of which are:

Reliability Theory – (24 papers)

Reliability of Components for Electrical and Electronic Systems – (22 papers)

Reliability of Electrical and Electronic Systems – (44 papers)

Reliability of Electric Power Systems – (30 papers)

Reliability Testing and Data Analysis – (20 papers)

Human Aspects, Management and Economy in Reliability Engineering – (20 papers)

As most of the 300 papers offered were considered relevant to the Conference, the selected 160 papers are of very high quality. This of course means that there are a lot of interesting papers for reliability experts, but what cannot be seen from the programme is, that approximately 60% of the papers are directly user-oriented. The technical programme has been structured in such a way that it will be of interest to electrical and electronics engineers, marketing experts, and indeed anyone concerned with research, development, manufacturing and application of electrical and electronic systems.

Technical Exhibition

An important feature of the conference will be the technical exhibition which will be placed in the building where the key-note and plenum addresses are presented. The fact that the conference is not only addressing reliability experts, but all users and manufacturers of electrical and electronic components and systems indicates that a broad variety of firms should be interested in participating in the exhibition and this is exactly what the Exhibition Committee has learned from the requests and reservations which have already been made.

The Exhibition Committee has prepared an informative leaflet for potential exhibitors which can be obtained from the Conference Office (see address below).

Refresher course in Reliability

A short course on basic reliability techniques is being offered in connection with the EUROCON '82 Conference in Copenhagen. The course will introduce basic reliability concepts and review those techniques, that now are being used more and more in connection with predicting, analyzing and controlling reliability. Special emphasis will be placed on the reliability of electrical and electronic components and systems. The course thus offers a unique opportunity for delegates to obtain an overview of the techniques that will be discussed in detail by the many experts lecturing at the conference.

The course will be led by *Dr. Finn Jensen (DK)*, who has nearly ten years' experience as a consultant and lecturer on Reliability.

The number of attendees for this course is limited, so an early reservation is advocated. The course will be conducted on Monday 14th June, 1982, between 8.30 and 12.30 on the conference premises. The

New Books on Communications:

Computer Message Systems

Proceedings of the IFIP TC-6 International Symposium on Computer Message Systems, Ottawa, Canada, 6-8 April, 1981

edited by **R. P. UHLIG**

1981. 496 pages. ISBN 0-444-85253-6

Price: US \$58.25/Dfl. 125.00

This work contains the proceedings of the first conference ever devoted *exclusively* to the subject of computer message systems. The 34 papers cut across the entire spectrum of technical aspects, human factors, and policy and regulatory issues associated with computer messages. The high quality of the papers contained in the work not only reflects on the individual authors, but is also indicative of the timeliness of the symposium.

This is the most *complete* survey in print covering all aspects of computer message systems. No other reference of this breadth and scope exists. The volume also serves as an invaluable guide to other literature on computer messaging via references quoted in authors' papers. Even after technology moves on, this work will hold historical significance, representing the first time that a major meeting was devoted exclusively to this major topic in telecommunications.

New Systems and Services in Telecommunications

Proceedings of the International Conference on New Systems and Services in Telecommunications, Liège, Belgium, 24-26 November, 1980

edited by **G. CANTRAINÉ and J. DESTINE**

1981. 376 pages. ISBN 0-444-86206-4

Price: US \$69.75/Dfl. 150.00

This book provides a comprehensive review of major new systems and services in telecommunications that will ease or even revolutionize our work and daily life. International leaders in the field describe the state of the art and trends of the competing systems. An interesting balance between technical details and discussions of the fundamentals is achieved.

The following topics, all in the field of important industrial and economic battles, are treated:

- Videotex and Teletext Systems
- Data Broadcasting
- Specialized Satellite Telecommunication Services
- Direct Satellite Broadcasting
- Interactive Data Retrieval (Videotex)
- Text Communication Services (Teletex)
- Telematics and Teleconference
- New Trends in Picture and Data Distribution

Networks from the User's Point of View

edited by **L. CSABA, T. SZENTIVÁNYI and K. TARNAY**

1981. 650 pages. ISBN 0-444-86291-9

Price: US \$79.00/Dfl. 170.00

This work presents the full proceedings of COMNET 81, an international symposium on data communication and computer networks. The aim was to analyze the experiences in running and utilizing teleprocessing systems and computer networks already in operation, with special regard to the problems and their solution experienced when using computers over remote terminals.

This work concentrates on an approach from the user's point of view. Stressed is the very timely question of

international coordination of standards, regulations, and tariffs concerning data and computer networks. The main sections of the book are: (1) experiences and activities of companies and individuals when installing, changing over to, and operating networks, (2) role of the international organizations and postal administrations, (3) special problems of data traffic crossing frontier, of new services, and of special purpose networks, and (4) other features such as data security, transparency, privacy, means and results of measurement, case studies, and applications.

Local Networks for Computer Communications

Proceedings of the IFIP Working Group 6.4 International Workshop on Local Networks, organized by IBM, Zürich, Switzerland, 27-29 August, 1980

edited by **A. WEST and P. JANSON**

1981. 484 pages. ISBN 0-444-86287-0

Price: US \$58.25/Dfl. 125.00

A key prerequisite for employing microprocessors in personal information systems is a solution to the problem of how to communicate and share information and resources in a local site. By offering low-cost communications between computers within a local area, the Local Network is the answer to this need. It offers to computers a service comparable to that of the PABX for humans, yet with a performance matching computer systems.

This Workshop on Local Networks brought together the active researchers, engineers, and systems designers working on aspects of this new technology for the purposes of technical information exchange. This publication consists of the presentation and discussion of selected original papers and current research contributions in the field, followed by several informal working sessions. Topics covered include local network technology, performance, protocols, standards, operating systems, and services.

If you are working on Local Network or related technology, or if you are responsible for gaining an impression of its characteristics in order to assess and plan for its implications, you will find this book essential reading.

Computer Communications:

Increasing Benefits for Society

edited by **J. SALZ**

1981. 898 pages. ISBN 0-444-86147-5

Price: US \$50.00/Dfl. 135.00

This volume represents the most prestigious international event in the field of computer communications. The conference, whose proceedings published here consist of 34 sessions and 128 papers, is held every second year under the auspices of the ICCC.

The work emphasizes the potential of computer communication for improving the lives of people everywhere. Contributors were drawn from many countries, and included scientists, planners, builders, administrators, regulators and users of computer communication services. A wide range of issues, encompassing both *policy and technology*, were considered by ICCC 80's panel discussions and regular sessions.

The book presents a *comprehensive* review of the state-of-the-art and directions for the future. With distinguished participation of computer experts from the world over, this work will certainly be of prime concern to all active members of the computer community.



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Announcing the IEEE Computer Society's first

Φ Tutorial Week EUROPE



Hanover, Germany
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Five days of tutorials in three tracks covering key areas of computer hardware, software, and applications technology at the beautiful Stadtpark Conference Center in Hanover, Germany — to be held concurrently with the Hanover Fair, the largest engineering and industrial exhibit in the world.

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 THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Saturday
April 24

Sunday
April 25

Monday
April 26

Tuesday
April 27

Wednesday
April 28

Software Design Strategies

1 ————— 2 ————— 3

Glenn D. Bergland & Ronald D. Gordon
Bell Telephone Laboratories

Software Testing & Validation

4

Automated Software Tools

5

Edward Miller
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6 ————— 7 ————— 8 ————— 9 ————— 10

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Architecture Technology Corporation

VLSI Design Technology

11 ————— 12 ————— 13

Rex Rice
Independent Consultant

Computer Graphics

14 ————— 15

Kellogg S. Booth
University of Waterloo

REGISTRATION FEES

IEEE Computer Society Members: \$125 (DM 312) per tutorial per day
Nonmembers: \$140 (DM 350) per tutorial per day

NOTE:

Registration limited to 100 per tutorial per day.
Please register promptly to assure your reservation.

Mail To:
Tutorial Week Europe
PO Box 639, Silver Spring, MD 20901 USA

I wish to register for the following tutorials
(please circle numbers).

Track I 1 2 3 4 5
Track II 6 7 8 9 10
Track III 11 12 13 14 15

Registration fees (per person per day):
Nonmembers — \$140 (DM 350)
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Check enclosed Visa/BankAmericard Master Charge
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Name _____ IEEE or IEEE-CS Membership No. _____

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Please send more information on Hanover Fair Tutorial Week Europe _____

Please send information on Tutorial Week East '82, March 22-26, 1982, Orlando, FL
 Tutorial Week West '82, December, 1982, San Diego, CA

Note: You may attend any combination of tutorial days you wish. However, you are encouraged to complete the full 2-, 3-, or 5-day sequence.



IMA Conference Series

Third IMA Conference on Control Theory

edited by J.E. Marshall, W.D. Collins, W. Harris and D.H. Owens

December 1981, xii + 912pp., 0.12.473960.1
£42.00 (UK only) / \$86.50

The present volume comprises full versions of all the papers presented at the conference by control theorists of international standing and it reviews the state-of-the-art worldwide in control theory in late 1980. The papers are grouped into sections each with an introduction by the editors which includes comparative remarks and critical comments.

Multivariable and Optimal Systems

D.H. Owens

1981, x + 300pp.

Cloth: £22.80 (UK only) / \$47.00, 0.12.531720.4

Paperback: £8.00 (UK only) / \$16.50, 0.12.531722.0

Most of the material published on multivariable and optimal systems is presented at a high level with emphasis on generality and mathematical rigour, yet the underlying concepts are essentially simple and the most applicable parts of the theory can be understood without using sophisticated mathematics. This text aims to provide a comprehensive, up-to-date and consistent treatment of the minimal foundations of those parts of the field with greatest relevance to practical design work. It enables the reader to tackle working design examples and lays the conceptual foundations for further study. All this is done using only undergraduate engineering mathematics.

Academic Press



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

Report on the History and Present Activities. The Germany Section of IEEE was established on 6 April, 1964 in Munich (Fed. Republic of Germany) with the encouragement of the Institute of Electrical and Electronics Engineers (IEEE) and in agreement with the Boards of Directors of the Verband Deutscher Elektro-techniker (VDE) and of the Nachrichtentechnische Gesellschaft im VDE (NTG).

All IEEE-members having their mailing address within the Federal Republic of Germany (including West-Berlin) are members of the Germany Section of IEEE. The advancement of an exchange of thoughts and ideas among its members and with scientists and engineers from abroad is an essential purpose of the Germany Section IEEE.

It was agreed between IEEE and VDE/NTG that in order to prevent duplication of effort Technical Conferences within the area of the Federal Republic or Germany should be held jointly with the VDE or the NTG as well as with other scientific societies. Furthermore it was agreed that at least one officer of the Executive Committee of the Germany Section IEEE has to belong to VDE and NTG and accepted by them as liaison officer.

The first Executive Committee of the Germany Section IEEE was already installed on 6 April, 1964, in Munich. The following persons were elected: Dr. L. Rohde (as Chairman), Prof. Dr. K. Fraenz (as Vice-Chairman), Dr. H. Burghoff (as Secretary), Dr. J. Berghammer (as Treasurer), Prof. Dr. H. Meinke (as Assessor) and Dr. P. Jacottet (as Assessor). It was stipulated that the manager of the NTG should always hold the position of the Secretary of the Germany Section IEEE (Dr. H. Burghoff 1964-1969, Dr. F. Coërs 1970 till today). For the election of the Executive Committee a term of three years was determined. The following persons were elected as Chairman of the Germany Section IEEE: Dr. L. Rohde (1964-1969), Prof. Dr. K. Fraenz (1970-1972), Prof. Dr. W. Kleen (1973-1978), Prof. Dr. W. Proebster (1979-1981), Prof. Dr. R. Saal (1982-1984).

In 1967 the Executive Committee worked out the BY-LAWS of the Germany Section IEEE defining all binding stipulations concerning the section and its activities. The BY-LAWS were revised in 1980/81, now indicating the officers of the section as follows: Chairman, Vice Chairman, Secretary, Treasurer, Secretary Treasurer, Student Activities Co-ordinator, Membership Development Co-ordinator, Conference Officer, Publication Officer, and two Assessors. These officers and the Junior Past Chairman form the Executive Committee of the Germany Section IEEE. The procedure of the elections was simplified, i.e. Chairman, Vice Chairman and Treasurer are elected by the section members and the other officers designated by them. This new procedure was already carried out for the 1982/84 election.

Actually, the Germany Section of IEEE has about 800 members. The statistics show from the beginning a constant member increase: 1964 - almost 200; 1968 - 215; 1970 - 264; 1972 - 357; 1974 - 417; 1976 - 524; 1978 - 610; 1980 - 776.

At present there are 26 IEEE Fellows in the section, four of them Life Fellows.

Eight Member Meetings enabling the exchange of thoughts and ideas among the section members have been organized since the formation of the section, usually combined with the VDE Congress, which takes place every second year in different German cities. This series was only interrupted in 1980, when a Member Meeting was organized on 28 March, 1980, in Stuttgart on the occasion of EUROCON '80, the fourth European Conference on Electrotechnics. EUROCON '80 was one of a series of conferences being organized in co-operation with the Germany Section of IEEE and demonstrating the various section activities. Professor Dr. W. E. Proebster, Section Chairman 1979-81, who substantially helped to make EUROCON '80 a successful and memorable event, was elected in that same year as Director of IEEE Region 8 for the term 1981-82.

The regular Region 8 Committee Meetings ensure the necessary co-ordination and exchange of thoughts among the different sections in Region 8. In this respect, a mark of gratitude should be dedicated to the IEEE Region 8 Newsletter which has become the information bulletin for the section members and the sections among each other. Also reports on the Germany Section of IEEE and its activities have often been and will be published in this newsletter. For the future it is hoped that the development of the Germany Section of IEEE and the Region 8 will continue positively and, as hitherto, based upon the honorary collaboration of the members.

A meeting of the Executive Committee of the Germany Section took place on 15/16 October, 1981 at the VDE Head Office, Frankfurt/M. For the term 1982/84 the following Officers have been elected: Prof. Dr. R. Saal, Munich, Chairman; Dr. H. Ruechardt, Vice-Chairman, and Dr. J. Berghammer, Treasurer. Student activities will be co-ordinated by Mr. P. Roth (D-7000 Stuttgart, University, Breitscheidstr. 2).

For questions relating to conferences contact Dr. W. Schilz (D-2000 Hamburg, Philips Forschungslaboratorium, Vogt Köln Str. 30). Dr. F. Coers (D-6000 Frankfurt 70, VDE-Haus, Stresemannallee 15) remains Section Secretary.

Efforts will be supported to set up student branches (requiring 20 or more members) with subsidized supply of all IEEE publications.

The Section will co-sponsor a conference on "Sensors - Technology and Application" to be held from 9-11 March, 1982 in Bad Nauheim, as well as the Sixth International Conference on Pattern Recognition (ICPR) from 19-22 October, 1982 in Munich, Germany.

The ExCo-Meeting was combined with a member-meeting with about 30 members of the Frankfurt area and an interesting visit to the T+N-Laboratories.

The next meeting is scheduled for 18/19 February in Hamburg, again with a local member meeting, to enhance personal contacts and give the opportunity to discuss IEEE-related matters.

Two members of the Germany Section have been honoured: Prof. Dr. W. Kleen receives the IEEE F. Philips Award and Dr. F. Rohde the IEEE Lamme Medal.

ISRAEL SECTION (Chairman: Mr. I. Ish-Hurvitz)

The Israel Section of IEEE was officially founded on the 5 October, 1954 by a small group of Electrical and Electronics Engineers who already were formerly members of the Institute. Its first chairman was the late Prof. F. Ollendorf, an eminent scientist, who passed away in December 1981.

Simultaneously with the technological development of the State of Israel, the Section kept on growing. Many prominent academics and industry executives joined the Section and assisted in carrying out a growing array of activities. As of 30 September, 1981, the Israel Section has 530 members (including 12 fellows, 39 senior members, 57 associates, and 88 students).

Most of the activities are performed by the chapters and the student branches. Chapters include joint S-AP/ED/MTT chapter, a joint CHMT chapter, a Powers Chapter, a Communication Chapter and a newly founded Computer Chapter. Three Academic Institutes (Technion, Tel-Aviv University and Ben-Gurion University) have an IEEE student branch and their members participate often in the Regional Student Paper Contest.

In 1980, an agreement was signed between IEEE and the Association of Engineers and Architects in Israel (AEAI) on co-operation in enhancing and promoting technical, scientific and professional engineering activities in Israel. As from this date, the members of IEEE Section ExCom are members of the ExCom of the Electrical and Electronics Division in AEAI and many of the activities are organized jointly. A continuing Educational Centre is now organized in the AEAI Institute in Tel-Aviv and will include IEEE publications and educational aids to be provided by IEEE and used by AEAI and IEEE Israel Section members.

The main activity of the Section is the Biennial Convention of Electrical and Electronics Engineers in Israel. From a small technical meeting, this Convention grew up to a gathering of 1,600 engineers at a two-day

Conference with four parallel sessions accompanied by an Industrial and Technical Exhibition of more than 1000 m². The 13th Convention is now scheduled for the 26-27 October, 1982 and a call for papers has already been issued.

The major activity of the Section during the last three years was the preparation and organizing of Melecon '81, the First Mediterranean Electrotechnical Conference, held in Tel-Aviv in May 1981. The 1,200 participants in this International Conference, instigated by the Israel Section, were welcomed by the President of Israel and had a choice of 132 papers in four parallel sessions for three days. An Industrial and Technical Exhibition was associated with the Conference, displaying, among others, the achievement of Israel Electronics Industry.

In the advent of its 28th year of existence, the IEEE Israel Section looks forward to further enlargement of its activities with special attention to continuing education and student activities.

Members of Section Executive Committee:

Mr. I. Ish-Hurwitz – Section Chairman

Dr. J. Baal-Schem – Past Chairman

Mr. R. Hoyde – Secretary

Eng. M. Snir – Treasurer

SWITZERLAND SECTION (Chairman: Prof. G. S. Moschytz)

Awards and Fellows. The following two members of our Section were elected as IEEE Fellows:

– Dr. J. Neiryneck, Professor of Network and System Theory at the Swiss Federal Institute of Technology in Lausanne, "For outstanding research and leadership on circuit theory and education".

– Dr. A. Goldstein, Brown, Boveri AG, Baden, "For contributions in the design, construction, and testing of EHV-Transformers".

The national student prize contest for exceptional electronical engineering projects was won by:

– W. J. Geldmacher and R. E. Schoepflin of the Swiss Federal Institute of Technology in Zurich.

– Ch. Borel of the Swiss Federal Institute of Technology in Zurich.

– U. Bapst of the Engineering College in Zurich.

Continuing Education. Following up on the intent of the new Executive Committee to intensify the Continued Education Program in Switzerland, a questionnaire on possible subjects for short courses was mailed to all members. The response indicated most interest for a course on "Basic Project Management". Such a course will be held in Zurich on 28 and 29 January, 1982. The next one, on "Tolerance Design of Electronic Circuits", is being planned for 13 and 14 May, 1982, in Zurich. Other courses, also resulting from the questionnaire,

are being planned for 1982. We are hoping to organize an average of at least two courses per year. The biggest problem encountered is finding suitable course material and qualified instructors.

Membership Development. While the recruitment for new members is proceeding in the regular way (via student members, display of IEEE material and membership-application forms at local meetings, etc.) a concerted drive was conducted in 1981 to reach members who dues were in arrears or who had – perhaps without realizing it – "drifted out" of IEEE membership. Letters were mailed to over 80 members and, as a result, numerous neglected memberships were renewed. Present membership in Switzerland amounts to 925 members, including approx. 80 students.

Conference Activities. Preparations for the largest Conference sponsored by the Swiss Section of the IEEE (and organized by the local Chapter on Digital Communications), namely the International Zurich Seminar, are well under way. This conference, the seventh of its kind, is scheduled to take place in Zurich from the 9 to 11 March, 1982. The program will emphasize the problem of Man – Machine Interaction. A significant number of attendees from abroad, including the USA, is expected.

Another IEEE-sponsored conference, the International Conference on Modern Filtering Techniques, took place in Lausanne from 6 to 8 October, 1981. The program featured various interesting sessions on modern filtering and signal processing techniques, and was a big success.

Section Meetings. Section meetings were generally organized in the form of IEEE co-sponsored colloquia at the Swiss Federal Institute of Technology and other Universities in Switzerland. In the summer of 1981 alone, 34 such section meetings were held in various parts of Switzerland with a relatively good attendance.

Chapter Meetings. The Chapter on Digital Communications organized a one-day "Forum on Digital Communications" in Rapperswill on 1 September, 1981. Well over 300 attendees turned out for the event which featured an interesting program ranging from the development of Videotex to Coding Systems and Key Management Systems. The Chapter on Solid-State Devices and Circuits organized a one-day Symposium on "MOS Analog Circuits" in Berne on 22 October, 1981. Over 80 attendees took part in the very interesting symposium on various important aspects of MOS circuit design and manufacture.

Student Activities. The new committee organized various interesting student excursions to industrial research establishments and laboratories. Since the turn-out was very encouraging, similar activities are being planned for 1982.

EFFECTIVE COMMUNICATIONS ARE VITAL...

Effective communications are vital to the efficiency of every organisation. The easiest way to see and compare the whole range of electronic communications systems is to visit **Communications 82**, the world's leading international exposition of communications equipment and systems. It will be the sixth in a biennial series and will comprise a major international exhibition and conference, plus a programme of social events with guest speakers of international stature.

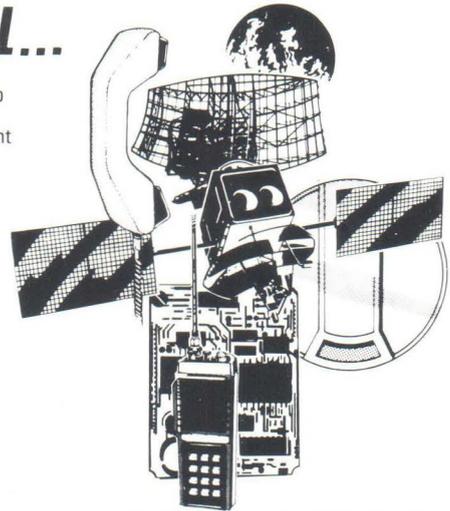
Communications 82 will be of direct interest to all communications users as it crosses the boundaries between civil and military, public and private, industry and commerce, fixed and mobile, in the same way as do the technologies involved.

So whatever you need – however specialised – you'll find the latest equipment at **Communications 82**, ranging from the simplest mobile radio equipment to tropospheric scatter; from public or private digital telephone exchanges to telephone handsets; and from data communications and information technology systems generally to fibre optics and power supplies.

Communications 82 enjoys unique and continuing support from national and international authorities, including

- International Telecommunication Union
- British Government – through the Home Office and the Department of Industry
- British Telecom
- and the two leading UK trade associations
- Electronic Engineering Association
- Telecommunication Engineering and Manufacturing Association

The **Communications 82** Conference is again organised by the Institution of Electrical Engineers, in association with the IEEE Communications Society, IEEE UK/RI Section, Institution of Electronic and Radio Engineers, British Computer Society, Institute of Mathematics and its Applications, and Institute of Physics.



Communications



Communications Equipment and Systems
National Exhibition Centre, Birmingham, England
20-23 April 1982

Communications 82 is organised by Industrial and Trade Fairs Limited
Radcliffe House, Blenheim Court, Solihull, West Midlands, England
Tel: 021-705 6707 Telex: 337073 for Tony Davies Communications.



To: Print Services Dept, Communications 82 047
Industrial and Trade Fairs Limited, Radcliffe House
Blenheim Court, Solihull, West Midlands B91 2BG, England

Please send me Exhibition Conference
details of **Communications 82***

Name

Position

Company

Address

Number of admission tickets required *Please indicate as appropriate

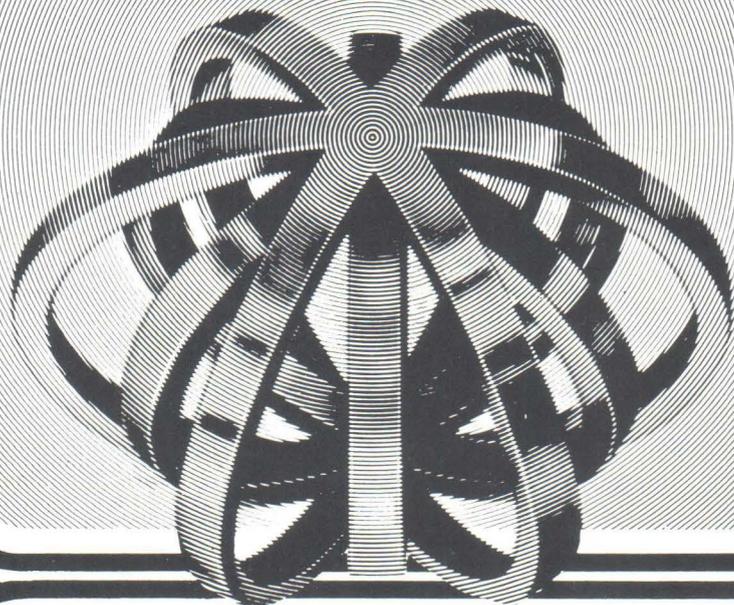
salon international des
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électroniques 82**

PARIS
1-7 april

closed on sunday 4

components
measuring
equipments

Organisation S.D.S.A., 20 rue Hamelin, F 75116 Paris ☎ 5051317 ✉ 630400 F



Monday, march 29 to thursday, april 1
International conference on new trends
in passive components

- Organic and inorganic materials
- Component manufacturing technologies
- Processing, implementation of passive components.

Monday, april 5
International round tables: new trends in integrated circuits

- Geopolitical competition:
domination or peaceful coexistence?
- What of to-morrow? small companies or giants?
Captive or open market?
Domination by the few or coexistence of the many?

Registration: Secrétariat général des colloques, 11, rue Hamelin - F 75783 Paris Cedex 16

A free invitation card for the exhibition is attached to this issue of the Newsletter. Supplementary free invitations and further information will be sent to you on request from S.D.S.A., 20, rue Hamelin - F 75116 Paris.

**UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION
-Circuits and Systems Chapter**

The Chapter Committee has proposed that the committee officers, who are as follows, should continue for 1982:

Chairman: Dr. J. I. Sewell (University of Hull)

Vice-Chairman: Dr. L. F. Lind (University of Essex)

Secretary: Dr. D. G. Haigh (Imperial College)

Any member of the Chapter may submit alternative nominations, which should be sent to Dr. D. G. Haigh, Dept of Electrical Engineering, Imperial College, London SW7 2BT. Nominations must be accompanied by the consent of the person nominated, and must reach

Dr. Haigh by 1 March, 1982. In the event of such alternative nominations being received, a ballot of the membership will be held.

"Data Transmission Filters" is the subject of the next CAS Chapter evening lecture to which all are welcome. It will be presented by Dr. L. F. Lind on Wednesday, 24 February, 1982, in the large lecture theatre, Polytechnic of Central London, 115 New Cavendish Street, London W1. Refreshments will be available immediately before the lecture at 6.00 p.m. A programme of further evening lectures and other events has been planned and these will be advertised in due course. For further information or suggestions for other events, please contact Dr. Haigh at the above address.

ADVERTISING RATES

Display - \$1,580 per full page, \$860 per half page, \$460 per quarter page. Page size A4 (296mm x 210mm). These rates are for 'camera ready' copy - a charge at cost will be made for any setting required.

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| | Delivery inserts to County Secretarial Services | Jan 22 | April 22 | July 22 | Oct 22 |

MEETINGS IN REGION 8

1982 INTERNATIONAL ZURICH SEMINAR ON DIGITAL COMMUNICATIONS

The seminar will be held 9-11 March, 1982 at the Swiss Federal Institute of Technology, ETH, at Zurich-Hönggerberg, which is situated about eight km. from Zurich main railway station on a hillside amidst meadows and woods.

A special bus service (the fare is included in the seminar fee) will connect the main railway station, the indicated hotels and ETH-Hönggerberg. On Thursday after seminar closing, a direct bus to the Airport will be provided.

This seventh seminar, organized by eight IEEE Sections/Societies and eight other organizations, will concentrate, like its predecessors, on selected topics within the field of digital communications. The theme selected for '82 is MAN-MACHINE INTERACTION, and is sub-divided into the following sessions and topics:

MMI - Impact on Communication Systems/Terminal Design

Session A: System Architecture; Service Features and Facilities.
Session B: Decentralized and Centralized Intelligence and Networking Aspects
Session C: Communication Software Aspects; Signalling, Access and Protocols.

Terminal Equipment: Concepts and Principles

Session D: Integration and Interaction Aspects
Session E: Pattern and Speech Generation/Recognition
Session F: Ergonomics/Human Factors.

Man-Machine Dialogue

Session G: Command Languages
Session H: Skilled versus Casual Users; User Guidance
Session I: Operation and Maintenance.

Tutorials

Sessions G and F will be introduced by a tutorial (see programme).

Panel Discussion

Session H will include a one-hour panel discussion among well-known representatives from administration, industry and research. Further information from: Secretariat '82 IZS, Miss M. Frey, EAE, Siemens-Albis AG, CH-8047 Zurich/Switzerland. Tel: +41-1-495 5120; saz ch 52131.

SENSORS - TECHNOLOGY AND APPLICATION

This conference is to be held from 9-11 March, 1982 in Bad Nauheim, West Germany. The conference is organized by the VDE-societies NTG and GMR in co-operation with the German Section of IEEE.

Sensors combined with micro-electronics are of rapid increasing importance. Since their impact reaches beyond specific activities, the subject will be treated by experts from scientific institutes, from manufacturing companies and by users. The conference is striving for the following goals:

1. Presentation of the state of the art in research and development, as well as manufacture and application of sensors including the necessary electronics.
2. Exchange of ideas between manufacturers and users.
3. Discussion of the users' expectations from research and development.

To attain these intentions, scientists with an international reputation in the field of sensors have accepted to give lectures.

Further outstanding contributions have been submitted by experts from universities, research institutions and industrial companies such as AEG-Telefunken, ASEA, Bell and Howell, Bosch, Cerberus, Figaro Engineering, Hottinger Baldwin Messtechnik, Olympia Werke, Philips, Siemens, VAC and VALVO.

Further information from: German Section of IEEE, Stresemannallee 15, VDE-Haus, D-6000 Frankfurt 70, Germany. Tel: (611) 6308-221.

29th INTERNATIONAL CONGRESS ON ELECTRONICS

For information on the progress being made in organizing this course, to be held in Rome, 23-24 March, 1982, details of which were given in the last Newsletter, please contact the Secretariat: Riena, Via Crescenzo 9, 00193 Rome, Italy. Tel: 06/6569343; Telex: 611407 Riena.

COMPUTER SOCIETY EXPANDS TUTORIAL WEEK SERIES TO EUROPE

The IEEE Computer Society's highly successful Tutorial Week series, initiated three years ago in San Diego, is being exported to Europe.

Organized in three tracks over five days and covering VLSI technology, computer graphics, software design and test, and local networks and office automation, Tutorial Week Europe 82 will be held next 24-28 April in Hanover, Germany, concurrently with the Hanover Fair.

"Technology is moving at such a rapid pace" says Computer Society Tutorials Chairman Joseph P. Fernandez of IBM San Jose Research "that schools are hard-pressed to keep up. And yet, the working computer engineer or software person must stay current. Our tutorials are given by practising professionals, and they zero in on the fastest moving areas of computer technology."

Track 1 consists of three days devoted to the topic of "Software Design Strategies," conducted by Glenn D. Bergland and Ronald D. Gordon of Bell Telephone Laboratories, followed by two days on "Software Testing and Validation" and "Automated Software Tools," conducted by Edward Miller of Software Research Associates.

Track 2 consists of a five-day sequence devoted to "Local Computer Networks and Office Automation," conducted by Kenneth J. Thurber and Harvey A. Freeman of Architecture Technology Corporation.

Track 3 begins with a three-day segment conducted by Rex Rice on the subject of "VLSI Design Technology," followed by two days on computer graphics, conducted by Kellogg S. Booth of the University of Waterloo.

All speakers, according to Fernandez, the principal co-ordinator of the event, have given similar presentations at previous Computer Society conferences in the US.

Registration fees for Tutorial Week Europe are \$140 per day for non-IEEE Computer Society members, \$125 for members. For programme information write to: Tutorial Week Europe, PO Box 639, Silver Spring, MD 20901, USA.

INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING

The 1982 ICASSP, sponsored by the IEEE Acoustics, Speech and Signal Processing Society, is the seventh in a series of international conferences devoted to experimental and theoretical aspects of signal processing, speech and acoustics.

For the first time in Europe, the conference will be held on 3, 4 and 5 May, 1982 in Paris, France, at the Palais des Congres. An advance programme, including registration forms, will be issued and will also appear in the ASSP Newsletter. Additional copies will be available on request to Cl. Galand, IBM Laboratory, 06610 La Gaude, France.

Digital Signal Processing is used in many technical fields which influence our professional and social life. These are, among others, communications, high fidelity, television, robotics, geophysics, instrumentation and aids for the handicapped. Therefore, advances in signal processing have an impact on our society. This will be the central theme of ICASSP this year; it will be introduced in the plenary session and will be a natural link between the many invited and contributed sessions which make the technical programme. The conference has drawn an exceptional amount of submissions from European and other countries. Therefore, this year's ICASSP will be much larger than ever before, with more than 500 submissions and 56 technical sessions.

Plenary and invited sessions. The Monday morning plenary session will begin with a presentation by M. Decina of the CCITT activity in signal processing. With the advent of digital techniques, CCITT has become concerned with the digital processing of speech, sound and image signals. Its impact on industry and also research, in terms of stimulation and orientation, although not very well known by the regular ASSP audience, is quite significant and will be underlined. Two related hot topics, 32 kBIT/S coding and subjective quality of CODECS, are the subjects of invited sessions.

In the second talk, G. Grandlund will address the subject of artificial intelligence. He will give a background for the use of hierarchical methods and an intuitive account of the methods and results. This talk is related to an invited session on image understanding.

The last talk, by R. Guedj, will be devoted to another topic of growing importance, human machine interaction. That talk is connected with numerous sessions on speech and image processing.

A now traditional ICASSP highlight is the invited VLSI session, in which the latest technological advances are reported and the latest products are disclosed. This year it is organized jointly by R. Owen and M. Camus. Another invited session will present typical applications of digital signal processing in communication networks.

Contributed sessions. The contributed sessions in digital signal processing cover the traditional topics in filter design, spectrum analysis, fast transforms and algorithms, adaptive techniques, signal modelling, hardware and software. Speech sessions are devoted to coding methods, pitch detection, analysis and synthesis, discrete utterance recognition techniques, connected speech recognition. Image sessions are devoted to coding techniques, analysis and statistical

processing, image restoration and reconstruction, multi-dimensional filtering. The underwater and applications sessions cover medium effects, arrays processing, time delay estimation and applications to radar, geophysics and bio-medical signals. Audio sessions consist in the now traditional digital audio session and a session in audio and electroacoustics.

CONFERENCE ON CONDUCTION AND BREAKDOWN IN SOLID DIELECTRICS.

This is an advance notice that the IEEE Electrical Insulation Society is sponsoring a meeting with the above title in Toulouse, France, from 4 to 8 July, 1982. The executive committee is:

Dr. C. Mayoux (Chairman)

Pr. R. Lacoste (Treasurer)

Dr. Y. Segui (Programme Chairman)

Pr. C. Hureau (Publicity Chairman)

Further particulars will be given as soon as they are received but meanwhile those seeking more information should approach - Dr. C. Mayoux, Université Paul Sabatier, Laboratoire de Génie Electrique, 118 route de Narbonne, 31062 Toulouse Cedex, France.

SUMMER SCHOOL ON COMMUNICATION SATELLITE ANTENNA TECHNOLOGY

Eindhoven University of Technology, Eindhoven, Netherlands, plans, in co-operation with IEEE Benelux and the University of Illinois, USA, an important five-day Summer School at Eindhoven University from 23-27 August, 1982 entitled "Communication Satellite Antenna Technology", for communication systems analysts and designers, antenna designers, technical managers and others engaged in the design of satellite communication systems, spacecraft antenna and ground stations. Underlying concepts governing design and system architecture are presented with a detailed development of specific techniques including multiple beams, frequency reuse, polarization control, beam shaping, dual shaped reflectors, adaptive and phase arrays, deployable reflectors and ground stations. Applications of these current state-of-the-art techniques to the upcoming generation of satellites, such as L-SAT, are illustrated.

The course will be given by distinguished lecturers from USA and Europe. Course directors: Eduard J. Maanders (Eindhoven NL), Raj Mittra (USA).

For further information please contact: Dr. E. J. Maanders, Department of Electrical Engineering, University of Technology, Postbox 513, 5600 MB Eindhoven, Netherlands. Tel: (0)40-473427 or (0)40-473447. Telex: 51163 thehv nl.

FIRST INTERNATIONAL SYMPOSIUM ON MEDICAL IMAGING AND IMAGE INTERPRETATION

ISMIII '82, the IEEE Computer Society's First International Symposium on Medical Imaging and Image Interpretation, will convene on 26-28 October, 1982 at the International Congress Centre, Berlin, following the Sixth International Conference on Pattern Recognition in Munich. The conference is co-chaired by Dr. Judith M. S. Prewitt, National Institutes of Health, Bethesda, Md, and Dr. Siegfried J. Poepl, Institut fuer Medizinische Informatik und Systemforschung der GSF, Munich, and is a joint project of the Computer Society's Technical Committee on Computational Medicine and AMK Berlin.

ISMIII will provide a transdisciplinary forum for biomedical and computer scientists and engineers, medical physicists and physicians from universities, medical centres, industry and government to exchange information and ideas and to assess progress and potential in the field. Invited and contributed papers and panels will emphasize advanced research and development, and innovative applications.

Prospective authors and panelists should submit by 15 March, 1982 four copies of a 200-500 word abstract and a short statement indicating the new contribution and its biomedical impact. Authors should indicate whether the paper will be long (ten pages maximum, thirty minutes) or short (five pages, fifteen minutes). Manuscripts should be directed to: ISMIII '82, IEEE Computer Society, 1109 Spring St, Suite 201, Silver Spring, MD 20901, USA.

Further information from: Murray H. Loew, Publicity Committee, ISMIII '82, Department of Electrical Engineering and Computer Science, George Washington University, Washington, DC, USA.

EMC ZURICH 1983 - CALL FOR PAPERS

The Fifth Electromagnetic Compatibility Symposium and Technical Exhibition will be held from 8-10 March, 1983. It is sponsored by the Swiss Electrotechnical Association and organized by the Institute for Communication Technology of the Zurich Federal Institute of Technology.

As usual, the programme provides for technical sessions and exhibition, workshops, round table discussions, technical excursions and social events. Best papers will receive citations and monetary prizes totalling Swiss Francs 5,000.

English abstracts of approximately 500 words shall be received on or before **15 March, 1982** by: EMC 1983 Programme Committee, ETH Zentrum - IKT, 8092 Zurich, Switzerland. Tel: (Dr. T. Dvorak) 411/256-2790, Tlx: 53-178 ethbi ch.

ADDENDUM TO CONFERENCE AND EXHIBITION CALENDAR

SEPTEMBER 1982

Sept. 13-17. 12th European Microwave Conference. Helsinki, Finland.

Sponsors: IEEE Region 8, A-P, E-D, MAG, MTT

Contact: Conference Department, Microwave Exhibitions and Publishers Ltd, Conver House, 43 Dudley Road, Tunbridge Wells, Kent, England TN11 1LE.

OCTOBER 1982

Oct. 12-14. Journées d'Electronique of EPFL.

"Optoelectronics in Telecommunications and Measurement Systems", Swiss Federal Institute of Technology, Lausanne.

Sponsors: IEEE Region 8, IEEE Switzerland Section.

Contact: Journées d'Electronique, EPFL, 16 Chemin de Bellerive CH 1007, Lausanne, Switzerland.

APRIL 1983

April 6-8. Second World Conference on Continuing Engineering Education, Paris, France.

Sponsors: IEEE Region 8, SEFI.

Contact: The European Society for Engineering Education, SEFI, 51 rue de la concorde, B 1050 Bruxelles, Belgium.

JUNE 1983

June 15-17. NASECODE III, Third International Conference on Numerical Analysis of Semiconductor Devices and Integrated Circuits, Galway, Ireland.

Sponsors: IEEE ED.

Contact: NASECODE Conference, 39 Trinity College, Dublin 2, Ireland.

OCTOBER 1983

October 4-6. International CARNAHAN Conference on Security Technology ETH, Zurich, Switzerland.

Sponsors: IEEE Region 8, IEEE Switzerland Section, AESS.

Contact: Institute fur Kommunikationstechnik, Zentrum CH-8052 Zurich, Switzerland.