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# IEEE Region 8 newsletter



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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
INCORPORATED

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No. 45 FEBRUARY 1979

## REPORT FROM THE INCOMING REGIONAL DIRECTOR



Dr. D. C. J. Poortvliet  
Director Region 8 1979-80

Just before the Region 8 Committee Meeting on November 11 and 12, 1978 at Split I was informed by Mr Richard Emberson, the General Manager of IEEE, that the members of Region 8 had elected me to be the new Regional Director. Although this came as a big surprise to me, I shall do my best not to disappoint the members of Region 8. I am glad to report that the present Secretary/ Treasurer, Bob Winton, agreed to continue his excellent work.

During December 6-12, 1978, I was invited to attend several IEEE meetings which were held at San Juan, Puerto Rico. Prof. Bolinder introduced me to the various committee members and explained how

these committees fitted into the total structure of the IEEE. It was very encouraging to learn from various IEEE people that the trans-nationality of the IEEE is accepted and needs to be developed further. The Board of Directors appointed an ad hoc committee on International Activities to study the problems. The first meeting of this committee, which I attended, was held on January 11 in New York. I am also appointed as a member of the Long Range Planning Committee for the year 1979.

On Thursday, December 14, 1978, I attended a meeting of the

EUROCON '80 Conference Steering Committee which took place in the VDE House in Frankfurt. The chairman, Prof. W. E. Proebster, IBM, Stuttgart, reported on the progress since the last CSC meeting and showed the final version of the EUROCON '80 leaflet, which in my opinion is an excellent design. Due to the work of Prof. W. Kaizer and Prof. F. L. H. M. Stumpers, chairman and vice-chairman respectively of the Technical Program Committee the tentative program and the draft for the "Call for Papers" could be discussed. The members of the TPC and its sub-committees will be appointed in the near future and the TPC will report on these items in the Newsletter as soon as possible. Further important items discussed were the budget and the social program, and I wish to thank VDE for the co-operation and hospitality.

The next Region 8 Committee meeting will be in Zürich, Switzerland, in April. If you, as a member of Region 8, want the Regional Committee to pay attention to certain problems, please write to your section chairman or to me.

Now some words about the out-going Regional Director. I met Folke for the first time about ten years ago during a Region 8 Committee meeting. Since that time I have seen him many times working for the Region. I shall try to follow his way of approaching people and problems and I know that he will as a Junior Past Director work with me in close co-operation.

DICK C. J. POORTVLIET  
Wassenaar, The Netherlands  
January 3, 1979

## REPORT FROM THE OUT-GOING REGIONAL DIRECTOR



Prof. E. Folke Bolinder  
Director Region 8 1977-78

The election for 1979 is now all over. Results: President, Suran; Exec. Vice-President, Young; VP Educational Activities, Leon; VP Professional Activities, Winschel; VP Publication Activities, Lucky; VP Regional Activities, Carroll; VP Technical Activities, Hogan; Secretary-Treasurer, Brereton; Director, Standards Activities, Koepfinger; Executive Director, Herz. Directors: R2, Farrell; R4 Rusche; R6, Eldon; R8, Poortvliet; R10, King; D2, Furfair; D4, Anderson; D6, Estrin; D7, Barkle. In Region 8 Poortvliet got 580 votes, Winton 502 votes, and 109 votes were blank.

The following members in R8 have been elected to Fellow grade of IEEE as of

January 1, 1979: Eykhoff, Zegers (The Netherlands), Katzeff (Belgium), Leroy, Mourier (France), Heywang, Schmitt (Germany West), Carassa (North Italy), and Koenig (Austria). Congratulations!

On November 9 I attended a Nominations and Appointments Meeting at Headquarters in New York. On November 11 and 12 a R8 Committee Meeting was held at Split, Yugoslavia. Participants: Bolinder (Chairman), Arink (Benelux), Gruden (Yugoslavia), Heierle (Switzerland), Kloen (Germany), Poortvliet (Membership), Protonotarios (Greece), Russell (UKRI), Remy (France), Smolinski (Poland), Stumpers (Past Director R8), Vander Vorst (Student Activities), Wellinger (Publications), Williams (R8 Newsletter), and Winton (Secretary-Treasurer R8). Guests: Carroll (VP, RAB), Hinton (RAB Consultant on International Affairs), Proebster (Chairman EUROCON '80 Steering Committee), and Wilhelm (Director Educational Services). The meeting was arranged by Professor Gruden. The following topics were discussed: IEEE officers, Institute news, Director's report, Member services, Transnational affairs, Clarity of written English, Registration, Student activities, Committee

meetings, Dollar depreciation, Financial position, Budget 1979, Continuing education, Section affairs, EUROCON '77 and '80, R8 Newsletter, Blocked accounts, Master schedule, Conferences sponsored by R8, Awards, and Membership. It was a good meeting. However, later on I was informed that the Israeli Representative, Mark Shavit, and his wife did not succeed in obtaining a permit to enter Yugoslavia in Athens, Greece, in spite of sincere efforts from the Yugoslavian IEEE members, so that the Shavit family had to return to Israel. This unpleasant incident could probably have been avoided if I had been smart enough to urge the Israeli Representative to get an entry permit in time.

On November 13 Mr. Douglas M. Hinton, Consultant to RAB on International Affairs, Professor A. Smolinski, Chairman of the Poland Section, and I went to Warsaw where we met Mr. T. Drysek, President of SEP, the Polish national society, in the evening. Currency problems were discussed, and an action program was set up. The next day I gave a technical lecture on our Swedish phased array projects at the Technical University of Warsaw.

A series of IEEE meetings were held at San Juan, Puerto Rico, during December 6-12. During the Long Range Planning Committee meeting on December 6 I reported on the results of the Task Force on Proposed Vice-President - International Activities (Bolinder, Tanner, Rivera-Abrams). A method of getting a new Vice-President of International Affairs on the Executive Committee and the Board of Directors without increasing the number of members was thoroughly discussed. It ended

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



up in a motion that the BoD should appoint an ad hoc committee to review transnational needs of the Institute. This motion was endorsed by TAB and RAB and passed unanimously at the BoD meeting. The ad hoc committee on international affairs will report directly to the BoD. The 1979 Executive Committee appointed the following members: Young (Exec. VP), Poortvliet (R8), King (R10), Rusche (D2), and Barkle (D7). I am very disappointed that the "old" Regional Directors Glass (R7) and Rivera-Abrams (R9) were not elected members. It is hard to believe that this was done in order to save money, because all meetings could conveniently be held in connection with the BoD meetings when everyone is around anyway.

During the Regional Activities Board meeting on December 8 the blocked currency accounts were discussed. It was suggested that all new blocked accounts should be stopped and that old ones should be tapered off. However, I hope that this question will be discussed by the

new ad hoc committee on international affairs.

The Board of Directors' meeting on December 10 and 11 discussed, among other things, the budget. 1978 seems to have been a good year and there will be no dues increase for 1979. Region 8 was given \$2000 by the Board because of extra expenses in holding the November R8 Meeting in a country with an IEEE blocked currency account. USAB wanted to go global.

On December 12 and 13 Dick Poortvliet and I travelled to Frankfurt, Germany, to participate in a EUROCON '80 meeting on December 14. EUROCON '80 is in good hands. Everything runs in a very efficient way. But now I think it is time to let the new Region 8 Director take over and report on EUROCON '80 and other interesting events.

E. FOLKE BOLINDER  
Gothenburg, Sweden,  
December 28, 1978

## EUROCON '80, STUTTGART, GERMANY

MARCH 24-28, 1980



Prof. W. E. Proebster

First of all we have now received from our Italian colleagues our part of the positive financial result of EUROCON '77, Venice, Italy, on which we can work forward. This result was due to the excellent co-operation between IEEE and AIE people in Italy. Professors Gigli, Carassa, Reggiano, Messrs. del Monte, del Castelbianco, Sabattini and several others not only did excellent work, but organised strong local support. The International Union of Radio Science also gave important help for the special (and very costly) day on Communications for the Developing Countries.

The Steering Committee for EUROCON '80 met in February, July and December,

1978, and the Program Committee in June and September, 1978, and in January, 1979, sometimes in Frankfurt and otherwise in Stuttgart. In January, 1978, we were shocked by the completely unexpected death of Dr. Ing. Fleischer, who was expected to play a leading rôle in the 1980 Symposium. We had the privilege of working with him for the Amsterdam and Venice Symposia. His enthusiastic support is unforgettable. Both EUREL and IEEE decided to add prominent German members to the Steering Committee, as the reader will have noted from the November announcement.

A great deal of work has already been done to bring EUROCON '80 to life and we confidently expect this conference to be even more important than the three previous EUROCONs in 1971, 1974 and 1977.

The subject of EUROCON '80 is microelectronics, which is advancing more rapidly, and is already attracting more attention, than probably any other area in the whole history of electronics. The program contains four main topics: Technology - LSI to VLSI, microprocessors, and future trends; Microelectronics in telecommunications - transmission, switching, computer communications, and news services; Microelectronics in power and control - power and control systems, industrial electronics, and remote control; New applications - road vehicles, consumer products, and medicine. The Conference language is English. The main Technical Program Committee consists of Prof. Dr. Ing. Kaiser, Stuttgart, Chairman; Prof. Dr. F. Louis Stumpers, Vice-Chairman; Dr. van Vessel, Philips, Eindhoven; Mr. Pouzin, IRIA Rocquencourt; Prof. Dr. Zwicky, ETH Zürich; Dr. Byford, RAF Farnborough; and Dr. Ing. Scholl,

Bosch Stuttgart as Chairmen for the topics. The topics chairmen will organise sub-committees for their special fields; several Societies have already suggested member experts.

The Symposium will start with a special session of invited papers from leading scientists on Monday afternoon, March 24. Tuesday and Thursday, March 25 and 27 will have tutorial sessions in the afternoon, followed respectively by sessions on social impact of the microprocessor revolution and on technological forecasting of future trends. These afternoons and all the mornings will also have technical sessions on the special subjects mentioned.

In addition, there will be a student program, a session on the social impact of microelectronics, a commercial exhibition, visits to local companies, and a social program including tourist attractions like the "Weinprobe" and a visit to the television tower and the surroundings of Stuttgart.

Papers are invited, and should be submitted to the Chairman of the Technical Program Committee, Prof. W. Kaiser, University of Stuttgart, Breitscheiderstrasse 2, D-7000 Stuttgart 1, Germany. The deadlines are: 500-word summaries not later than June 30; notification to authors of acceptance or rejection not later than October 31; complete text of accepted papers not later than December 31.

Further information about EUROCON '80 and the exhibition is available from the Conference Office, VDE, Lantenschagerstrasse 21, D-7000 Stuttgart 1, Germany.

The Chairman of the Conference Steering Committee is Prof. W. E. Proebster, who is also Chairman of the IEEE Germany Section. EUROCON '80 is sponsored by IEEE Region 8, EUREL (Convention of National Societies of Electrical Engineers of Western Europe) and VDE (Verband Deutscher Elektrotechniker). The Steering Committee is seeking financial support from commercial organisations.

The Conference and the exhibition will take place in the University of Stuttgart. About 600-800 delegated from all over the world, including Europe, the Near East, Japan and the USA, are expected to attend. The Technical Program Committee is planning to receive 150-200 papers, from which 80-90 will be selected for presentation.

There is a reduction in the Conference fee for members of IEEE, and there will be only a nominal fee for students. The student program will include the final of the IEEE Region 8 Student Paper Contest, and special sessions for students are planned.

EUROCON is the major conference in the Region 8 calendar, and information about it will appear in the Newsletter regularly. We hope members will support it by themselves attending and by advising colleagues who may be interested.

## INSTITUTE NEWS

### New General Manager of IEEE

Eric Herz of San Diego, California, Senior Project Engineer of the General Dynamics Convair Division, has been named General Manager of the IEEE. He assumed this new post on January 1, 1979, succeeding Dr. Richard M. Emberson, who plans to retire in 1979.

Dr. Ivan A. Getting, President of IEEE commented: "I am very pleased in the acceptance of Eric Herz of the position of General Manager of IEEE. Eric has had a broad experience in all the activities of the Institute. He therefore brings to the position mature judgement. His technical and management capabilities have been demonstrated and the membership of IEEE can look to the future with confidence."

Mr. Herz has been active in many IEEE regional and technical affairs and, at present, is Vice-President for Technical Activities of the Institute, having served as Division III Director for 1976-77. He has also been a member of the Board of Directors of IEEE from 1976 to the present.

### New Officers of IEEE

Dr. Jerome J. Suran, Staff Executive, Technology Operation, Technical Systems and Materials Sector, General Electric Company, Fairfield, Connecticut, will be President of the IEEE. Dr. Suran defeated Mr. Irwin

Feerst in the fourth contested election held by the Institute. Dr. Suran received 25851 votes and Mr. Feerst received 17637 votes.

The new Executive Vice-President will be Dr. Leo Young, Staff Consultant of the Electronics Technology Division, Naval Research Laboratory, Washington, DC. He will succeed Dr. C. Lester Hogan.

The one Constitutional amendment on the ballot failed to receive the required two-thirds vote of ballots cast. It called for direct membership election of those officers and Board members who now are elected by the annual Assembly in accordance with the current provision of the Constitution.

### Engineering Umbrella Society

Efforts continue in an inter-society attempt to create an umbrella engineering society, to be called the American Engineering Council. The IEEE Board of Directors has agreed to nine precepts approved by the proposed society's organising committee (itemised in October "The Institute"). The basic purpose of the new organisation is to unify the engineering community in the pursuit of profession-wide goals and in the provision of expert and timely advice on the "technology-related issues of the day".



## Standards News

The IEEE is re-publishing all of its nuclear standards in a new two-volume, hard-cover set. Purchased separately, the 44 documents included would cost \$195 but the set price is \$65.

The IEEE Standards Dictionary, originally printed in January 1978, is being reprinted. In its first nine months of publication 25000 copies have been sold.

The IEEE is also re-issuing another volume of its no-longer-current nuclear standards, which by government regulation must remain available. Further information on these publications, which are available from the IEEE Service Centre and through John Wiley and Sons, publishers, may be obtained from Bert Stanleigh at Headquarters.

## Revised Copyright Form

A revised IEEE copyright form has been distributed to all periodical

editors and will soon be available for conference publication chairmen. Authors receiving the form will be instructed to sign it, or have it appropriately signed, as a requirement for the publication of a paper in any IEEE publication. The form has been carefully revised to reflect the many inputs sought from and offered by major companies and company attorneys. Because use of the IEEE copyright form is now mandatory, its wide distribution is encouraged.

IEEE Transactions and Journals will each carry a printed version of the form, for reproduction and distribution, in the first issue of the each year. Companies that so request will be sent copies of the form and will be free to reproduce it, so that eventually most papers submitted for review will be accompanied by the form. Assistance in distributing the revised form and spreading the word to prospective authors is eagerly solicited. For further information, contact Pat Penick, Publishing Services.

## REGION 8 NEWS

### Engineering in Medicine and Biology



Dr. G. H. Byford

The biological sciences have of necessity to rely on a great variety of physical disciplines. Specific medical and biological groups enjoy a relatively high standard of international co-operation within their narrow specialities; the same cannot be said of the allied physical disciplines – this in spite of the fact that several hundred meetings and conferences are held annually on subjects to which engineers might well make major contributions, if only they were aware of their existence. For an experimental period the UKRI Section will provide an information service aimed at giving “biological” Region 8 members news of meetings and conferences dealing with subjects in which they may have an interest. Not only engineering, but medicine, biology, psychology, mathematics, physics and computing will all be included.

Volunteers are required, for a limited period, to act as national collection centres for any meeting and conference information of interest. They will need only to encourage the early reporting of future meetings and to send this information in any convenient language to the address given below. The UKRI Section will do its best to translate and then distribute meeting lists through the publicity machinery of the Section and Region. Notices should give the subject matter of the conference, its date and place, and the person from whom additional information may be obtained.

A service of this kind is already in existence in the UK; it is operated by the UK Liaison Committee for Sciences Allied to Medicine and Biology,

with whom the UKRI Section will be closely co-operating. It is hoped that the Region will eventually take over from the Section and that the service will be extended to other matters of interest to those physical scientists engaged in any aspect of medicine and biology – student visits, exchange employment, and requests for assistance and information would be examples.

Dr. G. H. BYFORD,

RAF Institute of Aviation Medicine,  
Farnborough, Hampshire, England.

### Transnational Policy Review Committee

On the initiative of Junior Past Director Folke Bolinder, the Board of Directors has set up a small committee to review the transnational policy of the IEEE. This committee would like to know what new services members in Region 8 wish IEEE to provide, which existing services members find most useful, and which services members wish to be increased. Members who have ideas about this are asked to advise their Section Chairman or Region 8 Director Dick Poortvliet who will forward their ideas to their Section Chairman. His address is St. Ursula Kliniek, EEG Dept., Eikenlaan 3-5, Wassenaar, The Netherlands, until February 28, and then TNO Research Unit, Westeinde Hospital, EEG Dept., Lijnbaan 32, 2512 VA The Hague, The Netherlands.

### Leonard G. Abraham Prize awarded to French engineers

The IEEE Communications Society has given the Leonard G. Abraham Prize to Mr. Maurice Bellanger and his colleagues Bonnerot and Coudreux for their paper: “Digital processing techniques in the 60 channel transmultiplexer”, published in the May 1978 Transactions. The Prize has been presented at the National Telecommunications Conference in Alabama on December 4, 1978. The authors are with TRT, le Plessey-Robinson, France.

## MEETINGS IN REGION 8

**Video Display and Technologies for New Forms of Communication,** March 13–15, 1979, Berlin.

**Conference on Very Large Scale Integrated Circuits** (Technology, Circuits-Techniques, Systems, Applications), April 3–5, 1979, Baden-Baden.

Both of these conferences are organised by the Nachrichtentechnische Gesellschaft im VDE (NTG) in co-operation with the German Section of IEEE.

Conference programmes and registration: VDE-Zentralstelle Tagungen, Stresemannallee 21, VDE-Haus, D-6000 Frankfurt 70, West Germany. Please refer to the November, 1978, issue of the Region 8 Newsletter for more detailed information.

**International Symposium on Electromagnetic Compatibility,** May 1–3, 1979, Rotterdam.

This European Symposium, that used to be held in Montreux, shifts this time to The Netherlands, also on occasion of the CISPR Plenary Assembly, that will follow it immediately. It will be organised by The Netherlands National Committee of the IEC in co-operation with the Institute of High Frequency Electronics of ETH Zürich. URSI, CISPR, EUREL, IEEE Region 8, IEEE Society on EMC, Association of Polish Engineers, and the Society of Automotive Engineers support the Symposium. The USA, the USSR, Japan and most countries of Western Europe are well represented, and less numerous contributions were accepted from DDR, Poland, Czechoslovakia and Iraq. The papers are distributed over sessions covering special subjects, such as: Magnetic fields, Biological effects, Spectrum management (two sessions), Nuclear electromagnetic pulse (two sessions), Electromagnetic fields, Immunity and susceptibility, Predicting RFI effects in integrated circuits, Modelling and measuring noise and interference, Effects of lightning and other impulsive disturbances, EMI effects of power lines and systems,

Measuring methods and production testing, Ignition and gas discharge noise. One session was kept open for late contributions (it is already full). Drs. Leenman, Director-General of the Dutch PTT is patron of the Symposium and will give a welcoming speech. Mr. George Hagn, Chairman of the relevant URSI Commission will give the keynote address: Key Scientific notes in EMC for 1979.

The Symposium dinner will be held on Wednesday, May 2. On this occasion the five best papers will receive a citation, and the two best papers also a monetary award. The selection is always a difficult task for the program committee.

Several industries take part in an exhibition in “De Doelen” where the scientific meetings are also held. Four workshops, one on EMC Diagnostics, one on EMI/RFI shielding methods, one on The application of programmable computers to EMI Prediction and EMC Design, and one on CISPR and national RFI measuring techniques. Some of these allow for experimental participation, but numbers are limited.

A program and registration form is available from Dr. T. Dvorak, ETH Zenter HF, Zürich 8092, Schweiz., or from Prof. Dr. F. L. Stumpers, Elzentlaan 11, Eindhoven, 5611 LG, The Netherlands.

### Second International Conference on Information Sciences and Systems, Patras, Greece, July, 1979.

This conference, sponsored by the Greece Section, will be held at the University of Patras, Patras, Greece, with Co-Chairmen Professors Tzannes and Lainiotis.

At the time of writing this Newsletter, no further details are available but these may be obtained from Professor N. S. Tzannes, Chair of Information Theory, Department of Electrical Engineering, University of Patras, Patras, Greece.



### Optical Communication Conference

The Optical Communication Conference to be held 17–19 September, 1979, in Amsterdam is unique in that it combines the Fifth European Conference on Optical Communication (ECOC) and the Second International Conference on Integrated Optics and Optical Fibre Communication (IOOC). The subject area will be broader than in the preceding European Conferences and the participation from outside Europe will be larger.

Scope of the Conference: 1. Fibres and fibre cables: Design, basic phenomena, fabrication techniques, materials, characterisation, coupling, splicing, cabling, installation, reliability, theory. 2. Devices: LEDs, semiconductor lasers and other solid state lasers, amplifiers, detectors, switches, modulators, characterisation, reliability, theory. 3. Integrated optics: Planar optical waveguides, filters, couplers, micro-fabrication techniques, active and passive waveguide devices and integration thereof, coupling to fibres, micro-optics, non-linear phenomena, theory, material aspects, fields of application. 4. Equipment and techniques: Optical transmitters and receivers, repeaters, coupling to optical fibres, circuit design, modulation techniques, multiplexing techniques. 5. Optical communication systems: Telecommunication systems, short distance systems, special application systems, trial systems, reliability, testing, trends in systems, cost considerations.

Authors are requested to submit original papers in the form of an extended abstract. In case of acceptance of the paper this extended abstract will be reproduced in the Conference Proceedings, which will be made available to registered participants at the conference. Four copies plus the typed original should be sent to: G. A. Acket, Chairman, Technical Programme Committee, Philips Research Laboratories, 5600 MD Eindhoven, The Netherlands, before March 15, 1979.

Further information from: Secretary of the OCC, Amsterdam, J. H. C. van Heuven, Philips Research Laboratories, 5600 MD Eindhoven, The Netherlands.

### Fifth European Solid State Circuits Conference – ESSCIRC 79

ESSCIRC is organised by the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers Region 8, the Institute of Mathematics and its Applications, the Institute of Physics, the Institution of Electronic and Radio Engineers, and the Solent Area of the Southern Centre of the Institution of Electrical Engineers and with the support of the Convention of National Societies of Electrical Engineers of Western Europe (EUREL).

It will be held at the University of Southampton, England, September 18–21, 1979.

Contributions in the following fields will be welcomed: Circuit design for VLSI, Integrated electronics, Circuit techniques, Circuit applications of new devices, Optoelectronics, Digital systems, Integrated systems, and Circuit testing.

## NEWS OF THE SECTIONS

### BENELUX SECTION

The following list gives Officers for the period July 1978–July 1980.

Chairman: Dr. ir. E. K. Maanders, Technische Hogeschool Eindhoven.

Vice-Chairman: Prof. R. J. van Overstraeten, Katholieke Universiteit Leuven.

First Secretary: Ir. G. J. Arink, Philips Medical Systems, Best.

Second Secretary: Ir. W. Sansen, Katholieke Universiteit Leuven.

Treasurer: Ir. G. J. Vos, Philips Natuurkundig Lab., Eindhoven.

### GERMANY SECTION

This is a summary of the report given by the Chairman at the Section Meeting on October 4, 1978, in Hannover for the period from October 1976 to September 1978.

Elections for the period of three years beginning January 1, 1979, had the following results:

Chairman: Prof. Dr.-Ing. W. E. Proebster, IBM Stuttgart.

Vice-Chairman: Prof. Dr.-Ing. R. Saal, Techn. University Munich.

Secretary: Dr.-Ing. F. W. Coërs, VDE, Frankfurt.

Treasurer: Dr.-rer.nat. H. Rüchardt, Siemens, Munich.

Assessors: 1. Prof. Dr.-Ing. D. Kind, Phys.-Techn. Reichsanstalt, Braunschweig.

2. Prof. Dr.-Ing. G. Kohn, Techn. University, Stuttgart.

For the first time the members of the Executive Committee are not only communications engineers, as a specialist for high-voltage engineering, Prof. Dr. D. Kind, had been elected.

The percentage of voting was very satisfactory: 48.6%.

On August 31, 1978, the Section had 578 members, i.e. an increase of 81 in two years, or of 50 (9.46%) since September, 1977.

Five Fellows were nominated in 1977 and three in 1978. The Section now has 25 Fellows, among them two Life Fellows. One Fellow has left IEEE on account of his age.

With 360 Members the number of 79 Senior Members seems rather small; Members are again asked to apply for Senior Membership.

It is proposed to arrange invited papers in the following fields: The impact of VLSI, European developments in VLSI, Design automation, Integrated circuits in the consumer area, and Telecommunications.

Invited speakers will include: Dr. D. M. Leakey (GEC Telecommunications Ltd, UK), Dr. B. T. Murphy (Bell Laboratories, USA) and Dr. J. C. van Vessel (NV Philips' Gloeilampenfabrieken, Netherlands).

Those wishing to offer contributions for inclusion in the Conference programme are asked to advise the IEE Conference Department as soon as possible of the intended subject coverage of their paper. Special typescript paper and guide notes will then be supplied, sufficient for a three-page abstract (approximately 2000 words). Abstracts must be submitted to the IEE Conference Department by May 2, 1979.

Further information: Conference Department, IEE, Savoy Place, London WC2R 0BL, England, telephone 01-240 1871 (Ext. 261), telex 261176.

### Third World Telecommunication Forum, September 23–26, 1979, Geneva.

The final meeting of the program committee of the Technical Symposium, which is part of the above Forum, took place in Geneva on January 8 and 9, 1979. It will be realised that the selection of about 130 papers out of an offering of over 400 was a difficult task, all the more as really good papers had to be refused.

The Sunday afternoon meeting has a special character, as it commemorates the fifty years of CCIR. The first meeting was in The Hague in 1929, and Dr. van Duuren, who participated already then, will give his view of the early years. Mr. Thue (France) and Mr. Bellchambers (UK) are expected to discuss the future of CCIR, and two world-known authorities will discuss satellite communications and radio astronomy.

On the next three days the morning sessions are plenary meetings, treating respectively: The integration of the world telecommunication network, From existing to new telecommunication networks (new technologies—new potentials in communications) and The future of world-wide integrated communications. In the afternoons there will be four parallel sessions, each with nine papers on all three days. Dr. Stumpers says: "I have never chaired a program committee for which the contributions came so much from all over the world."

The provisional program will be printed soon and distributed by ITU, Geneva, Switzerland. The papers will be available in a book before the opening of the Symposium. The conference has wide sponsorship by Societies from all over the world: IEEE (several of its societies are mentioned separately), EUREL, the Popov Society, the Japanese Society for ITU, the Australian Society, the Indian Society, etc. A very large exhibition with worldwide participation will increase the interest.

During the time under review, three IEEE awards have been granted to German engineers:

Morris N. Liebmann Award to Dr.-Ing. H. Berger and Dr.-Ing. S. K. Wiedmann, IBM, Boeblingen.

W. R. G. Baker Prize to Prof. Dr. M. R. Schröder, University Göttingen.

1978 Senior Award of the IEEE Acoustics, Speech and Signal Processing Society to Prof. Dr.-Ing. P. Noll and Dr.-Ing. R. Zelinski.

Since the formation of the Section, the Section Secretariat was managed by VDE (Dr.-Ing. F. Coërs), for which we express here our best thanks. Especially due to this fact the financial burden of the Section was and is small and has allowed us to offer 22 students free entrance to IEEE; the membership fee will be paid by the Section during a limited time.

In co-operation with the National Society, NTG, during the time under review five conferences took place. Furthermore, the Section was co-sponsor for a number of international conferences such as ESSCIRC and ESSDERC.

The following NTG-Conferences are in preparation with co-sponsorship of the Section:

Image representing systems and technologies for new forms of communications, March 13–15, 1979, in Berlin.

Large-scale integrated circuits, April 3–5, 1979, in Baden-Baden.

The Communications Chapter founded in 1976 in the Section's geographical region has been dissolved. There was no activity due to the fact that its members, belonging to the US Army, change their residences too frequently.

### MIDDLE AND SOUTH ITALY SECTION

The Middle and South Italy Section sponsored, together with the North Italy Section, the Second National Conference on Applied Electromagnetics, held in Pavia from October 2 to 4, 1978. About 120 persons attended the conference, which was devoted to the following questions. Antennas – Electromagnetics and environment – Solving problems in electromagnetics – Optical fibres, Integrated optics and holography –



# For those at the forefront of E.D.P.

## Software Reliability

### A Study of Large Project Reality

by T.A. THAYER, M. LIPOW, and E.C. NELSON, TRW Defense and Space Systems Group

1978 324 pages US \$40.00/Dfl. 90.00

This book provides the first substantive study of **empirical** software reliability data, its collection, analysis, and categorization. Based on analysis of this data, a study is made to quantify characteristics of the software, the development program producing the software, the test program detecting errors, and the errors themselves. Sets of error categories, both causative and symptomatic, are defined for application in the analysis of software problem reports and their closures. A mathematical theory of software reliability is presented and applied to the analysis of software error data and to software testing. Other software reliability models are surveyed. This book's definitive analysis of the software reliability subject and its real-world experience in producing large software systems makes it a valuable acquisition for all those active in the computer field.

## Characteristics of Software Quality

by B.W. BOEHM, J.R. BROWN, H. KASPAR, M. LIPOW, G.J. MacLEOD and M.J. MERRITT, TRW Defense and Space Systems Group.

1978 216 pages US \$25.00/Dfl. 65.00

This book establishes a conceptual framework for and describes some key results in the analysis of the characteristics of software quality. Its main conclusions are that *explicit attention to characteristics of software quality can lead to significant savings in software lifecycle costs*, while the current software state-of-the-art imposes specific limitations on our ability to evaluate the quality of software.

The bulk of the work reported in this book was performed in a study by TRW for the National Bureau of Standards. The book presents this original material and the subsequent updates in the following sequence:

- a preface which introduces, summarizes, and updates the study;
- the text of the study itself; and
- a revised and updated version of the excellent annotated bibliography prepared especially for the study.

*"...It is the first substantial practical attack on the problem of defining and measuring 'Software Metrics' on a broad front.*

Tom Gilb

## Computer Choice

### A Manual for the Practitioner

by R.J. McQUAKER

1978 186 pages US \$37.75/Dfl. 85.00

This book expounds a methodology for the systematic selection of computers and for the establishment of a sound contractual relationship between user and supplier.

The book in itself is unique in that the material is extensively illustrated by reference to its **practical application in a multi-million dollar project** as well as to acquisitions one-hundredth of that size. The book draws extensively on the results of an indepth review of the practical experience and the end product of that major application. Insights gathered from this book **can save the reader tens of thousands of dollars.**

## The Performance of Computer Installations

### Evaluation and Management

edited by DOMENICO FERRARI, University of California, Berkeley.

1978 340 pages US \$44.50/Dfl. 100.00

This book contains papers on the most recent advances in some of the crucially important areas of computer installation performance evaluation and management. Included are discussions of novel ideas and results of research in workload characterization, benchmark construction and usage, tuning methods, monitoring technology, capacity planning, equipment procurement, cost-benefit analysis of performance evaluation activities, and the evaluation of virtual-storage machines, database systems, interactive and real-time installations, and distributed systems.

The work emphasizes **practical and immediate applications** of performance evaluation techniques to the planning management and improvement of computer installations. The invited papers have been written by the leading figures in the field.

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## Data and Reality

### Basic Assumptions in Data Processing Reconsidered

by WILLIAM KENT, IBM.

1978 216 pages US \$26.00/Dfl. 60.00

This excellent study of the problems inherent in describing the real world is unique in:

- being an almost exhaustive, condensed rendition of the typical problems encountered,
- not offering an own solution as remedy for all evils,
- penetrating into the mists of conceptual ambiguity.

The author examines real information as it occurs in the interactions among people, but always with a view toward modelling that information in a computer based system.

*"...(an) excellent, philosophical... discussion of the problems inherent in describing the real world... I think that all data base researchers should read this document. It might also be assigned as supplementary reading in general graduate and undergraduate courses in data base systems."*

Mike Senko

## Computer Technology Impact on Management

by GEORGE A. CHAMPINE, Sperry Univac.

1978 308 pages US \$26.00/Dfl. 60.00

This book provides a quantitative review of current trends and extrapolations of technology in system design, software, communications, and reliability, **including expected price trends** in processors, main storage, and mass storage.

It is written to integrate a broad spectrum of what is happening in computers today as well as what is forecasted for the next three to seven years. These current and projected advances in computer technology are then assessed for their impact on both organization management and EDP management.

Champine directs his book at organization and EDP management in both the public and private sector. He also provides a valuable text for the computer designer or user specialist who desires a broad overview that synthesizes the current and projected technologies in the large and advancing computer field. *Those who do cope with these advances will become increasingly competitive and successful. Those who don't will become non-competitive at best, and can have disastrous failures in systems implementation or operation at worst.*

**North-Holland Publishing Company:**

P.O. Box 211, Amsterdam, The Netherlands  
52 Vanderbilt Ave, New York, N.Y. 10017, U.S.A.



Biological effects, diagnostic uses and dangers of electromagnetic waves – Components, instrumentation and measuring techniques – Propagation of electromagnetic waves. The number of papers discussed at the conference reached 55, and the discussion showed a considerable interest from the audience in the various items.

On November 30, 1978, Prof. G. Biorci, Chairman of the National Committee on Engineering and Architecture Sciences of the National Research Council, gave a lecture on the results of the Parliamentary enquiry on the state of electronics in Italy. On this occasion the IEEE Fellow certificate was handed over to Prof. G. Barzilai for his contribution in the field of electromagnetics theory and in didactics.

The following list shows the names of Officers for the period August 1978 to August 1980.

Chairman: Mr. Paolo Bernardi.

Vice-Chairman: Mr. Carmelo Tamburello.

Secretary/Treasurer: Marcello d'Amore.

Membership Development Committee Chairman: Alfonso Capasso.

Programme Committee Chairman: Peter Paiser.

Awards Committee Chairman: Valerio Cimaralli.

Student Activities Committee Chairman: Roberto Sorrentino.

#### **POLAND SECTION**

On November 14, 1978, Prof. Bolinder gave to the Polish audience the lecture on Phased Array Antennas which was received as one of the most interesting and fascinating events during this year. The other important lectures given to the Poland Section members in 1978 were:

On May 17: "Modal Dispersion in Optical Fibres in Presence of Mode Coupling", by Prof. Bruno Crosignani, from Rome, Italy;

On June 9: "A Useful Optimisation Theory and Some Applications to Circuit and Antenna Array Problems", by Prof. David K. Cheng, from Electrical and Computer Engineering Department, Syracuse University, NY;

On September 20 and 21: "Emitter Efficiency and Heavy Doping Effects in Bipolar Transistors", and "Thermal Stability and Heat Flow Calculations for Silicon Devices", by Prof. E. L. Heasell, from Waterloo University, Ontario, Canada;

On October 31: "Optical Fiber Communications in Finland", by Prof. Seppo Halme, from Helsinki University of Technology, Communications Laboratory, Finland.

The IEEE Poland Section co-operated also in organising the Fourth Wroclaw Symposium on Electromagnetic Compatibility which was successfully held in Wroclaw, Poland, on September 13–15, 1978. Prof. F. Louis Stumpers, Junior Past Director of IEEE Region 8, was a Chairman of the Scientific Committee. Among its members was Prof. Andrzej Wojnar, Past Vice-Chairman of the Poland Section, Prof. Adam K. Smoliński, Section Chairman, was a member of the Symposium Council.

#### **UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION**

The Annual General Meeting of the Section will be held on Thursday, March 22, at the Institution of Electrical Engineers, London. Please note the Agenda for this meeting enclosed with this Newsletter and, in particular, the reply slip at the bottom of it to indicate whether you plan to attend.

As no further nominations were received in response to the list of nominated officers and committee members enclosed with the last Newsletter, those named were duly elected. The enclosed list of names and addresses shows both existing and new members who will serve on the Executive Committee throughout 1979. The list shows Mr. W. H. Devenish as Acting Secretary, because he wishes to hand over to a successor as soon as possible, but he will continue as Editor of the Region 8 Newsletter and, as such, expects to be able to continue to attend meetings of the Executive Committee.

**Circuits and Systems Chapter.** The CAS Chapter committee officers for 1979 are:

Chairman: Dr. W. Saraga (Imperial College, London)

Secretary: Dr. L. F. Lind (University of Essex), and

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

**Proposed Acoustics Speech and Signal Processing Chapter.** The setting up of a chapter of the ASSP Society is under consideration. Members of the ASSP Society and others who are interested in the formation of such a chapter for the UK and Republic of Ireland are asked to contact Dr. A. G. Constantinides, Department of Electrical Engineering, Imperial College, London, as soon as possible. In order to assess the support that such a chapter would receive, the CAS Chapter Committee plan to hold some meetings during 1979 on topics of particular relevance to signal processing.

## **STUDENT NEWS**

The 12th undergraduate student paper contest will take place next Spring, probably in Zürich, Switzerland, around April 27, 1979. The rules are essentially the same as before. I hope that there will be many entries. All the counselors of the Region 8 Student Branches have received the adequate information in due time.

I have lost contact with several branches. In particular I did not receive an answer from the University of Cairo (Egypt), Ecole Nationale Supérieure des Télécommunications (France), Ecole Supérieure pour Ingénieurs Electriciens et Electroniciens (France), Institut Supérieur d'Electronique du Nord (France), Institut Supérieur d'Electronique (France), University of Padova (Italy), Politecnico di Milano (Italy), Politecnico di Torino (Italy), Linköping University (Sweden), Royal

Institute of Technology (Sweden), University of Rome (Italy), University of Oulu (Finland), and Technical University of Helsinki (Finland).

Could anyone of those schools or of the corresponding Section get in contact with me? I would be most grateful.

I hope to visit some branches in the near future. Could you please help me in organising such trips? On the other hand, if you have difficulties where you feel I could help, do not hesitate to contact me:

A. VANDER VORST,  
Region 8 SAC Chairman,  
B 1348 Louvain-la-Neuve,  
Belgium.

## **ADVERTISING AND INSERTS**

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