

# IEEE Region 8 newsletter



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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
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Editor: Mr. W. H. Devenish, ERA Technology Ltd., Cleeve Road, Leatherhead,  
Surrey, England KT22 7SA.  
Tel. Leatherhead 74151

Telex 264045 ERALHD G

Regional Director: D. C. J. Poortvliet

TNO Research Unit, Westeinde Hospital, EEG Dept.,  
Lijnbaan 32, 2512 VA The Hague, The Netherlands.

No. 51

AUGUST 1980

## REPORT OF THE REGIONAL DIRECTOR



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

After the Region 8 Committee meeting I joined IEEE President Young and General Manager Herz on their visit to Israel and Egypt. In Israel we discussed with the Section Chairman Dr. Baal Schem, MELECON 81. Special attention was paid to the financial aspects. MELECON 81 was also discussed with representatives of the Association of Engineers and Architects in Israel (AEAI) and representatives of the Israeli industries. Another important meeting took place in the offices of the AEAI where a draft of an agreement between IEEE and AEAI was discussed and signed by IEEE President L. Young and AEAI President U. Stock. In Egypt we had very interesting and fruitful meetings

with the officers of the Egypt Section. Special attention was paid to how the IEEE could support the various activities of the Section. We also visited the University of Cairo where we met Dr. Kabil, Dean of the Faculty of Engineering. In the building of the Egyptian National Society IEEE we had a meeting with the members of the Egypt Section. One of the main concerns expressed by the members were the tremendous mailing delays of the IEEE publications. From this place I went to thank Dr. Saleh Amer, Egypt Section Chairman, Ing. Abdel Latif I Ahmed, vice-chairman and Dr. A. Y. Bilal for all they did to make our visit to Egypt so interesting and successful.

In May I attended meetings in Boston of the Regional Activities Board (RAB), the Technical Activities Board Transnational Relations Committee (TAB-TRC) and the Board of Directors. In the RAB the following resolution passed unanimously:

"The RAB endorses and commends the action Region 8 has taken by the creation of MELECON 81, a conference to serve the special needs of the IEEE members in the Mediterranean Sections".

The draft of an agreement between AEAI and IEEE was discussed and

the motion made to recommend to the Executive Committee the adoption of the agreement passed unanimously. The proposed revisions to Bylaw 109.1 to include an assessment for Region 8 was adopted and the amount of assessment was fixed at \$7 (Regions 1-6 have an assessment of \$10 and Region 7 an assessment of \$7). The assessment is discussed elsewhere in this Newsletter.

Mr. W. E. Cory, RAB Finance Committee Chairman reported that this committee has been looking carefully at the "Gibson" formula which is applied to determine IEEE support to the Regions. He asked the Regional Directors additional information to come up with an accurate appraisal of expenses for each Region. The RAB recommended to the ExCom and the BOD the continuation of the use of credit cards for payment of annual dues and fees for members in Regions 8, 9 and 10. Many members in Region 8 used this possibility. The RAB also adopted the concepts and bases for an agreement between the French National Society SEE and IEEE. I hope I can present a draft agreement during the August meetings of the IEEE Boards.

After the RAB meeting there was an informal meeting of the Regional Directors to discuss common organizational and financial problems. I found this meeting extremely valuable and to my opinion it contributed a lot to a mutual understanding.

In the TAB-TRC meeting much attention was paid to how the TAB could improve the services to members in the developing countries. Special educational programs were considered and possibilities to finance these operations are going to be investigated.

During the Board of Directors' meeting Treasurer Brereton discussed the financial situation of the IEEE. He pointed out that a dues increase in 1981 is unavoidable and urged all IEEE officers and staff members to minimize their expenses. The amount of dues increase shall be discussed in August when the 1981 budget shall be presented.

Finally I want to draw your attention to the elections for IEEE President, Vice-President and the Region 8 Director. Read their statement carefully and please vote. It is extremely important for the position of your next Regional Director.

DICK C. J. POORTVLIET  
The Hague, The Netherlands

June 28, 1980

## STATEMENT ON THE REGIONAL ASSESSMENT

The annual subscription of all members in Region 8, with the exception of Student members, will be increased on 1 January, 1981 by a Regional assessment of \$7, to provide finance to maintain and increase the present Regional and Section activities.

The decision to make this increase was reached by the Region 8 Committee only after a great deal of discussion extending over two meetings; in 1983 the Committee will review the financial position and decide whether the assessment can be reduced or discontinued. The Committee agreed that the additional funds which will be available to Region 8 should be used in two ways - to provide additional member benefits and to enable the Region 8 Committee to maintain and improve cohesion and co-operation between Sections in the Region.

Among additional member benefits will be financial support for meetings of Student Branch Counsellors every two years, to strengthen existing Branches and encourage the formation of new Branches. This drive to increase the number of Student members will be coupled with

plans to encourage Student members to become full members when they cease to be students, and so promote even larger increases in the number of members in the Region.

The Committee has also decided to discontinue the subsidy paid by each Section towards the expenses of the Region 8 Newsletter, which means that Sections will have some additional finance available for their own activities, and to maintain the Newsletter at its present level after the subsidy ends in spite of sharply rising costs.

The Committee has allocated additional funds for member services, and will be discussing how best these should be used. Among the possibilities which have been considered are funding continuing education activities, in particular lecture tours by outstanding speakers, and providing a reserve for sponsoring conferences, which will enable IEEE members to attend at a reduced fee.

The need for additional funds for the Region 8 Committee to maintain the existing cohesion and co-operation between Sections is due to the effects of inflation and the decline in the value of the American dollar compared with the currencies of most countries in the area of Region 8. Since Region 8 started, it has always held two Committee meetings a year, and this forms the main item in its budget. The Committee has discussed on a number of occasions whether to economise by holding only one meeting a year but on each occasion the majority of members has voted to continue with two meetings as the minimum number necessary to preserve the unity, co-operation, and discussion between Sections which give purpose and drive to the work of the Committee,

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



which has produced a realization of the important role which Region 8 has and of the value of membership. Other Regions have already found that the financial support they receive from Headquarters is insufficient to fund their activities, and Regions 1 through 6 (the USA) have an assessment of \$10 and Region 7 (Canada) an assessment of \$7. I think it is worth remembering that the decrease in the value of the dollar has resulted in members in many countries paying reduced annual subscriptions, in terms of their own currencies, for a number of years, and that the Region has economized to the extent that only after 15 years has it become necessary to ask members for direct financial support, although over this period inflation and the decreasing value of the dollar have considerably reduced the Region's income in real terms,

while over the same period the financial support which the Region receives from Headquarters has increased very little in actual amount, and has thus decreased considerably in real terms.

I am well aware that cost increases are never welcome but I hope what I have written will enable you to understand why the members of the Regional Committee finally decided that only through a Regional assessment could their work continue to be really effective in strengthening and supporting the Sections and the Region.

Quite separate from the decision to make a Regional assessment is the probability that there will also be an increase in the annual IEEE subscription in 1981, and I should tell you that the total increase you will be asked to pay may therefore be more than the \$7 assessment.

DICK POORTVLIET

## NOMINATIONS FOR REGION 8 DIRECTOR 1981-2

### Statements by the Candidates

**PROF. WALTER E. PROEBSTER,**  
Chairman IEEE German Section



*Prof. Dr.  
Walter E. Proebster*

There are four specific goals which I would like to pursue with particular emphasis within the range of responsibilities of the Regional Director:

1. Promoting the getting together of IEEE members of Region 8 on common technical issues by strengthening conferences, supported solely or co-sponsored by IEEE. Examples of these conferences are EUROCON and MELECON.

2. Promote the understanding between the IEEE and the national societies of EE, e.g.

through related activities, joint resolutions on items of mutual interest such as energy policy, technology impact, etc.

3. Promote the recognition of our profession as EE in Society by making the public aware and understanding of our achievements. Strengthening of the self-esteem of EEs within the framework of our activities etc.

4. Continue to strengthen the financial well-being of Region 8, also through participation in successful conferences. This will subsequently enable sponsoring of special student programmes in conferences, industry visits, etc.

**EMMANUEL N. PROTONOTARIOS**  
Professor of Electrical Engineering, National Technical University of Athens, Greece



*Prof.  
Emmanuel N. Protonotarios*

Region 8 encompasses countries with different languages, religions, political and educational systems, and cultural backgrounds. The Regional Director must show great respect for these differences and try to enhance the transnational role of IEEE. The Institute's strength is derived from its stature as an international technical organization and learned society. Therefore, our role as a technical society of great excellence must be maintained. In many countries the national societies cover the local needs very well. IEEE should co-operate with them and EUREL adding a dimension of international understanding and technical excellence. EUROCONS are excellent joint ventures. Other technical conferences should also be co-sponsored by the Region.

IEEE should serve its members by assisting them in their continuing technical and educational development. To achieve these goals our most important task is to keep up with the membership, by organizing and substantiating IEEE activities in every Section. We must initiate co-operation among the Sections by exchanging speakers and discussions, to promote cross-fertilization of ideas. Students are the backbone of IEEE and we should emphasize student activities: interesting student contests, exchanges between sections, meetings and workshops. **Region 8 Newsletter** is a link between our members and its scope should be increased.

As the liaison between the local Section administration and the Board of Directors, the Regional Director should expend time and effort to learn the desires of the members in his Region, and try to maintain reasonable dues.

## STATEMENT FROM PRESIDENTIAL CANDIDATE RICHARD W. DAMON



*Richard W. Damon  
Presidential Candidate*

I am greatly honoured to be nominated for 1981 President of the IEEE. But to hold that office is not only an honour; it is a responsibility to manage and represent the largest technical organisation in the world so that its resources are used effectively for the benefit of all people, and it is an opportunity to further enhance the position of engineers and engineering in our society.

My own career has emphasised technical activities and I believe firmly that continued technical excellence of the IEEE must remain our principal objective. Our publication and conference activities are recognised around the world as outstanding means for exchange of technical

information. Before my term on the IEEE Board of Directors, as Direction of Division IV, I was active in several of the Societies and Groups of Division IV. I was Associate Editor of the Journal of Quantum Electronics and on the Editorial Boards of IEEE Proceedings and Transactions on Microwave Theory and Techniques. The stature of these and other IEEE publications would be seriously diminished without the technical papers submitted by our members in Region 8. I

have served on conference committees for the Microwave Symposium, Ultrasonics Symposium, InterMag and Conference on Magnetism and Magnetic Materials. Some of these are periodically held outside the US, such as InterMag at Firenze in 1978, and all of these IEEE Societies or Groups co-operate with overseas conferences in their fields. It is important that the IEEE continues to provide such opportunities for its members to meet and to share information and concerns.

Regional and Sectional activities bring the Institute home to the members. As a previous Chapter chairman and member of the Executive Committee in the Boston Section, I know that Chapter meetings, tutorial courses and regional meetings provide technical information to those who can't attend the major disciplinary conferences. In places with strong national engineering societies, as in many parts of Region 8, the Regional activities provide an opportunity for co-operation in sponsoring conferences and for joint efforts in other areas of concern to the engineering profession. We have excellent relations with many other engineering societies in a variety of joint activities. I believe it is vital that the IEEE support Regional and Sectional activities throughout the world.

Over the years I have had the pleasure of visiting laboratories and attending conferences in many of the countries of Region 8. You have contributed greatly to our common profession. I look forward to future opportunities to visit with my many friends in Region 8, and to meeting new friends.

## MELECON 81

MELECON 81, the first Mediterranean Electrotechnical Conference, will be held in Tel-Aviv, Israel, on 24 through 28 May 1981. The main theme is Electrotechnology for Development, with particular reference to Mediterranean countries, and the Conference will be programmed under six main headings:

Telecommunication Systems and Services including: communication

networks and services; transmission systems (microwave, millimeter, optical, etc.); switching systems; computer networks and data communications.

Solar Energy and Wind Power Systems including: domestic and industrial applications, energy conversion technology.

Microprocessor and Computer Applications including: applications in



industrial automation, in the home, and in the office; current trends in data processing; evaluation of performance of computer systems. Electronics and the Environment including: pollution control; ocean engineering; exploration of mining resources; electromagnetic compatibility and frequency management. Medical Applications of Electronics and Computers including: clinical measurements and diagnostic aids; medical care in remote areas. Technology Transfer and Socio-economic Impacts including: technology transfer; socio-economic impact of high technology in the Mediterranean countries; electrical engineering and computer sciences education (methods, technology, and programs); impact of micro-electronics on the productivity of small scale industries; introduction of hybrid and monolithic integrated circuit technology. MELECON 81 was initiated by the Israel Section, which believes that it is timely to organise a meeting which highlights technical subjects of particular interest to the electrical and electronics industries and research centres situated in countries around the Mediterranean. They anticipate over one thousand participants; the Conference language is English. MELECON 81 is sponsored by Region 8, the Israel Section, and the Association of Engineers and Architects in Israel, and is organised in co-operation with national electrical and electronics engineering societies in Mediterranean countries. The Conference is recognised as an International Technical Co-operation Centre event.

## EUROCON 82

The Conference will take place in Copenhagen, June 14-18 1982, with the theme Reliability in Electrical and Electronic Components and Systems.

Original user-oriented, theoretical or tutorial papers are invited from all countries. Among topics which are considered as being in keeping with the Conference theme are the following:

Reliability of power stations and distribution systems, atomic power plants, communication systems, bio-medical devices, microelectronic devices, computer hardware and software; testing and trouble shooting techniques for components and systems – both software and hardware, environmental considerations, burn-in procedures, accelerated

Papers are invited. A 500-word abstract must arrive at the MELECON 81 Secretariat, P.O.B. 3473, Tel-Aviv, Israel, before 31 October. Authors will be notified of acceptance or rejection by 31 January 1981, and final manuscripts must be submitted by 31 March.

Associated with MELECON 81 is an extended version of ISRATECH 81, Israel's Biennial Electronics and Electrical Exhibition, which when last held in 1979 attracted more than 300 exhibitors and over 60,000 visitors. This is an industrial and scientific Exhibition which enables companies in the electrical and electronics industries to display and demonstrate their products and latest technological developments.

The Conference registration fees are \$160 for IEEE members (\$145 if airmail postmarked before 15 April), and \$200 for non-members (\$180 if airmail postmarked before 15 April). Students can obtain accommodation and entrance to the Conference at the reduced combined rate of \$150. Additional information on the MELECON 81 Conference and Exhibition, including a preliminary registration form, is available from the Secretariat.

Additional special events associated with MELECON 81 are technical visits, a social programme, a sightseeing programme for those accompanying participants, and a three-day post-Conference tour in Israel.

ROBERT C. WINTON

## MEETINGS IN REGION 8

### International Symposium on Subscriber Loops and Services

The final programme, for September 15-19 1980 in Munich, Federal Republic of Germany, has been issued. The symposium is organized by NTG, Nachrichtentechnische Gesellschaft im VDE, in co-operation with IEEE Communications Society, IEE Electronics Division, IECEJ (Japan), SEE (France).

Further information from: German Section of IEEE, Stresemannallee 21, VDE-Haus, D-6000 Frankfurt 70, Germany.

### International Conference on Electromagnetic Compatibility

The conference is organized by the IERE in association with IEE, IEEE, IME, IQA and the Royal Aeronautical Society, at the University of Southampton, Southampton, England, 16-18 September 1980.

**Programme** (provisional): First day: Keynote Address – Dr. C. G. Bradshaw (RSRE, Malvern); Session I – Communications; Chairman: G. A. Jackson (ERA Technology) and W. S. Wilkinson (The City University). Session II – Cables and Connectors; Chairman: Colonel W. Barker (The Services Kinema Corporation).

Second day: Session III – EM Environment in Aircraft; Chairman: P. A. Shaw (MOD (PE)). Session IV – Aerospace Design and Testing; Chairmen: Dr. J. M. Thomson (RAE, Farnborough) and G. M. Smith (A & AEE, Boscombe Down); (parallel session): Session V – Specifications and Regulations; Chairman: W. S. Wilkinson (The City University). Session VI – EMP and Lightning; Chairman: Brigadier R. Knowles (The Institute of Quality Assurance). Session VII – Screening; Chairman: L. Walters (Plessey Electronics Systems Research). Session VIII – Modelling and Simulation; Chairman: A. Hann (British Aerospace, Stevenage).

Final day: Session VIII (continued). Session IX – Susceptibility and Immunity; Chairman: R. J. Harry (Police Scientific Development Branch, Home Office). Session X – Case Studies and Design Aids; Chairman: Dr. C. G. Bradshaw (RSRE, Malvern).

Further information from: IERE, 99 Gower Street, London WC1E 6AZ, UK.

### First European Signal Processing Conference.

The first European Signal Processing Conference will be held on the Lausanne Campus of the Swiss Federal Institute of Technology from September 16 to 19, 1980.

Sessions will include tutorial and review papers, new research results, presentations of applications and technological novelties. Poster sessions will also be set up. English is the official language of the conference.

The conference is devoted to all aspects of signal processing including: signal and noise theory; filtering; spectral analysis; image and 2-D signal processing; new signal processing technology; special purpose

testing, failure mode effects and criticality analysis, fault tree analysis, detection of incipient failures; models for reliability growth, applications based on operations research techniques, quality control; trade-offs among reliability, maintainability, availability, serviceability and costs; human detection and diagnosis of failures, reliability planning and management, subjectivity of human assessments of reliability; life cycle cost, reliability as a marketing factor, legal especially liability aspects.

The deadline for one-page abstracts is December 1, 1980. In the abstract it should be stated clearly what is new and hitherto unpublished. The abstracts should be sent to: Dr. Peter W. Becker, Electronics Lab., DTH, Bldg 344, DK-2800 Lyngby, Denmark.

hardware and software developments; radar-sonar signals and systems; speech processing; applications in communication, bio-

## IEEE REGION 8 AND THE MIDDLE AND SOUTH ITALY SECTION ANNOUNCE THE CO-SPONSORSHIP OF THE 28TH INTERNATIONAL CONGRESS ON ELECTRONICS

TO BE HELD IN  
**ROME, PALAZZO DEI CONGRESSI,  
23-24 MARCH 1981,  
DURING THE 28TH INTERNATIONAL EXHIBITION  
OF ELECTRONICS, NUCLEAR ENERGY AND  
AEROSPACE TECHNOLOGY**

Theme: Computer communication in view of technological innovations in the 80's.

New System concepts and advanced technologies (micro-processors and, more in general, microelectronic components) generate improvements and promote new applications in the sector.

The following sessions are planned:

(a) System concepts:

- (1) Distributed processing.
- (2) Computer communication networks.

(b) Technologies.

(c) Applications.

Round Tables:

1. Evolution in software methodologies, connected to new hardware technologies and applications in computers and in computer communication.
2. Computers in medical research (sponsored by A.I.I.M.B. – Italian Association of Medical and Biological Engineering).

Written contributions will be considered. Accepted papers will be published in the Proceedings of the Congress. Those who intend to submit a written contribution must notify the Secretariat (Via Crescenzo 9, 00193 Rome, Italy) before 10 November 1980 indicating the title and enclosing a short summary.

Registration fee is 60,000 Italian lire.

For additional information please write to the Secretariat: Riena, Via Crescenzo N.9, 00193 Rome, Italy.  
Tel: 06/6569343, Telex: 611407.



medicine, pattern recognition, seismology, industrial processes, etc. Further information from: Mrs C. Stehlé – EUSIPCO-80, Dept of Electrical Engineering, Swiss Federal Institute of Technology, 16 Ch de Bellerive, CH-1007 Lausanne, Switzerland. Trel: (21) 47 26 24. Telex: 24478 EPFVD CH.

#### Electromagnetic Compatibility

After four successful symposia it has become obvious that the yearly international EMC symposium on the European scene has proved its viability and usefulness. This fifth symposium is to be held in Wrocław, 17–19 September, 1980. Further information from: Mr. W. Morón, Secretary General, EMC Symposium, P.O. Box 2141, 51-645 Wrocław 12, Poland. Telex: 0712118 ilwr pl. Tel: 482-815.

#### International Broadcasting Convention

Advance information on technical sessions, 20–23 September 1980: Broadcasting Technology in the 80s.; Chairman: J. A. Flaherty, USA. Signal Origination; Chairmen: P. Hansen, Denmark (am) and D. H. Mills, South Africa (pm). Digital Television Coding Standards; Chairman: P. Rainger, UK. \*Teletext; Chairman: L. Free, Australia. \*Transmitters and Transposers; Chairman: To be announced. \*Signal Processing; Chairman: Y. Guinet, France. \*Antennas and Propagation; Chairman: C. Terzani, Italy. \*Training and Maintenance; Chairman: A. Reading, UK. \*Recording and Storage; Chairman: J. A. Roizen, USA. \*Satellites; Chairman: To be announced. \*Transmission and Distribution; Chairman: R. Gressman, Belgium. \*Receivers; Chairman: To be announced. \*Measurements; Chairman: Prof. J. J. Geluk, Netherlands.

\* In parallel.

Further information from IBC Secretariat, Institution of Electrical Engineers, Savoy Place, London WC2R 0BL.

#### Text and Picture Communication

The final programme has been issued for "Text-und Bildkommunikation" (Text and Picture Communication) to be held in Stuttgart (FRG) from September 30 – October 3 1980. The conference is organized by the NTG (Nachrichtentechnische Gesellschaft im VDE) in co-operation with the German Section of IEEE.

Further information from: German Section of IEEE, Stresemannallee 21, VDE-Haus, D-6000 Frankfurt 70, Germany.

#### Second International Conference on Antennas and Propagation

The Institution of Electrical Engineers, in association with the Institute of Electrical and Electronics Engineers Inc. (Antennas and Propagation Society), the Institute of Mathematics and its Applications, the Institute of Physics, the Institution of Electronic and Radio Engineers, and the International Union of Radio Science (URSI), are organising this conference at the University of York, UK, April 13–16 1981.

The aim of this second conference is to promote interaction between those active in the fields of antenna theory and design, and electromagnetic wave propagation. The entire radio-wave spectrum used for telecommunications, navigational and radio-astronomical purposes will be considered. Contributions will be welcome which describe antennas used for broadcasting, communications, satellite communication and radar, and those dealing with more fundamental aspects. Other subjects for contributions include radio propagation with relevance to telecommunications (both satellite and terrestrial), radar, navigational aids and remote sensing applications, as well as contributions which will enhance our basic understanding of radio propagation in the earth's environment.

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

#### Third International Telecommunications Energy Conference

The Institution of Electrical Engineers is organising the third in the series of International Conferences on Telecommunications Energy in association with the Chartered Institution of Building Services, the Diesel Engineers and Users Association, the IEEE Communications Society, the Institution of Electronic and Radio Engineers, and the Institution of Post Office Electrical Engineers, at Royal Lancaster Hotel, London, UK, May 19–21 1981.

The aim of the conference is to provide an international forum for the advancement of the theory and practice of telecommunications power, energy and related systems. Over 450 participants and exhibitors attended the second INTELEC Conference in Washington DC, USA, in November 1979 at which more than 80 contributions were presented, covering a wide range of topics.

The Organising Committee invites offers of contributions covering the design, manufacture, operation and maintenance of equipment and plant in the following areas: DC power plants; Distribution of power; Battery and load rectifiers; Batteries; DC-DC converters; Power for switching, transmission or customers' apparatus; Invertors; Power supplies for computers; AC uninterruptible power systems; Technology of power – magnetics, devices and components; AC standby power systems and choice of fuels; Engine-driven alternators, solar systems, fuel cells; Building environmental systems; Energy management and conservation; Economics of power systems; Cable and bus-bar

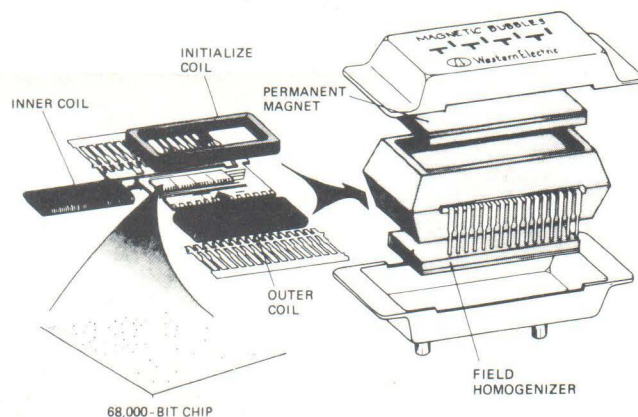
A. H. ESCHENFELDER

## Magnetic Bubble Technology

1980. 271 figs., 8 tab. XIII, 317 pages.  
(Springer Series in Solid-State Sciences, Volume 14)  
Cloth DM 97,-; approx. US \$57.30  
ISBN 3-540-09822-4

This book provides the material for a one-semester course on the various aspects of magnetic bubble technology: the properties of bubbles and their physical origin; the materials that are suitable for bubbles and how their properties can be tailored; the different forms of bubble devices and the way that these devices operate; the relationship of the practical device parameters to the fundamental characteristics of the bubble materials; the general method of fabrication including bubble material preparation, deposition of device structure and chip packaging; applications for bubble devices and examples of product configurations for those applications.

This book fills an important gap in the existing literature. Other books or chapters are either very narrow in scope and more detailed than desired for an introduction to the field, or are outdated by recent developments. This text provides both students and professionals with an introduction to the field that is balanced in both scope and detail. At the same time it contains information and charts useful to those with experience in magnetic bubble technology. It is suitable for instruction in solid-state science, materials science, computer technology, or integrated electronics.



Typical bubble device module.



Springer-Verlag  
Berlin Heidelberg New York



# New Books in Computer Technology

## Command Language Directions

Proceedings of the IFIP TC 2.7 Working Conference on Command Languages, Berchtesgaden, West Germany, 10-14 September, 1979.

edited by **DAVID BEECH**, IBM, U.K.

1980. 432 pages. US \$53.75/Dfl. 110.00  
ISBN 0-444-85450-9

The 43 invited participants, from 13 different countries, examined the present state-of-the-art of Command Language design and implementation, and discussed future trends that can be discerned. Particular attention was paid to user requirements, to the merging standardization activities, and to the influence of networks.

**CONTENTS:** Preface. **Sessions:** 1. **Opening Session.** Contributors: D. Beech and F. R. Hertweck. 2. **Existing Systems.** Contributors: T. A. Dolotta, J. Madsen, J. R. Mashey and I. A. Newman. 3. **Standards - I.** Contributors: L. C. Frampton, T. Harris, S. Mellow, I. A. Newman and C. T. Schlegel. 4. **Standards - II.** Contributor: I. Dahlstrand. 5. **User Requirements.** Contributors: D. Flint, B. A. Huckle, M. S. Jende, D. Rayner, M. L. Schneider and R. L. Wexelblat. 6. **Directions and Futures - I.** Contributors: D. A. Jardine, H. J. Kugler and C. Unger. 7. **Directions and Futures - II.** Contributors: K. Ivanov and J. Madsen. 8. **Networks and Conclusion.** Contributors: F. R. Hertweck, K. Hopper and D. Rayner.

## Practice in Software Adaption and Maintenance

Proceedings of the SAM Workshop, Berlin, April, 1979

edited by **R. EBERT, J. LÜGGER and L. GOECKE**, Grossrechenzentrum für die Wissenschaft in Berlin, F.R.G.

1980. 464 pages. US \$58.50/Dfl. 120.00.  
ISBN 0-444-85449-9

The main topics covered and presented in this work are: Reports resulting from conversion practice complemented by theoretical thoughts for program adaption; Presentations and conceptual discussions of adaption and maintenance tools to help the adaption programmer in his/her daily work; Analysis and documentation techniques to describe internal software structures based on source text; Test techniques to achieve safety and reliability; User-oriented interface and documentation. Orientation toward application was the workshop's starting point. User-oriented aspects of information techniques were therefore discussed with re-

spect to their future trends. These proceedings are supplemented by an exhaustive, integrated bibliography on this subject, as well as by a KWIC-index on methods and tools for Software Adaption and Maintenance with more than 1000 references.

The work will be indispensable to computer scientists, software engineers, management and system analysts.

## Entity-Relationship Approach to Systems Analysis and Design

Proceedings of the International Conference on Entity-Relationship Approach to Systems Analysis and Design, Los Angeles, December 10-12, 1979

edited by **PETER P. CHEN**, University of California, Los Angeles, U.S.A.

1980. 676 pages. US \$68.25/Dfl. 140.00.  
ISBN 0-444-85487-8

This meeting attracted some 250 information systems specialists and managers (practitioners and researchers) from 11 countries, and this international aspect is reflected in the papers contained in this work.

In total, 39 full-length papers and 16 abstracts are included in this book. These papers and abstracts are organized into eight chapters: Chapter 1 gives an *Overview of the Entity-Relationship Approach*. Chapter 2 describes new *Data Analysis and Database Design Techniques*. In particular, the papers by Santos et al. and Scheuermann et al. incorporate data abstraction concepts into the Entity-Relationship Model and the linkages between ERM and the relation model. In Chapter 3 *Theories of Entity-Relationship Approach* are discussed. Chapter 4 contains the descriptions of several *Database Design Tools* including a computer graphics facility for creating and maintaining Entity-Relationship Diagrams. Chapter 5 describes the applications of ERM in *Requirements Analysis* and the research projects at Hughes Aircraft Company and Information Science Institute. Chapter 6 presents several experimental *Languages and DBMS* being investigated at Digital Equipment Corporation, Bell Laboratories, Lawrence Berkeley Laboratory, and several universities. Chapter 7 suggests possible applications of the ERM to the design on *Distributed Databases* - Especially for heterogeneous databases. Chapter 8 presents several *Case Studies* and practical experience of applying the ERM in the real-world environments. It also describes a new way of viewing *Accounting* - the Entity-Relationship View.

## Advanced Manufacturing Technology

### Programming Research and Operations Logistics

Proceedings of the Fourth International IFIP/IFAC Conference, PROLAMAT 79, Ann Arbor, Michigan, 21-23 May, 1979.

edited by **PETER BLAKE**, Society for Manufacturing Engineers, U.S.A.

1980. 464 pages. US \$58.50/Dfl. 120.00.  
ISBN 0-444-85455-X

The Proceedings contains the following sessions: (1) parts geometry description, (2) manufacturing planning and process optimization, (3) integrated CAD/CAM systems, (4) CNC and man-machine interface, and (5) artificial intelligence scheduling. During these sessions, ideas of current research-results in theoretical and practical aspects were exchanged; the results presented in this work convey the actual state of the art to the engineering, management, and computer world.

Authors for the various papers published in this work are from Hungary, England, United States, G.D.R., U.S.S.R., France, Japan, Poland, Brasil, F.R.G. and The Netherlands, and represent some of the most prominent leaders in computer software and manufacturing technology.

## Real-Time Data Handling and Process Control

First European Symposium on Real-Time Data Handling and Process Control, Berlin (West), 23-25 October, 1979

edited by **H. MEYER**, Commission of the European Communities, Belgium.

1980. 804 pages. US \$73.25/Dfl. 150.00.  
ISBN 0-444-85468-1

The Symposium was primarily designed to present and discuss the status and future trends of real-time applications in connection with: existing standards and their applications, developmental efforts for proposing standards, the influence of advances in technology.

Like its forerunners the CAMAC Symposia in 1973 and 1975, the First European Symposium on Real-Time Data Handling and Process Control attracted more than 500 participants from 27 countries. The presence of representatives from the international organizations ISO and IEC who sponsored this event, stresses the interest in new development projects in a field as important as real-time data-handling and process control. This Symposium brings together, for the first time, research, development and standardization aspects, and experience in the application of standards.

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systems; Power control and supervisory systems; Psophometric noise and filters.

Further details from: INTELEC 81 Secretariat, IEE, Savoy Place, London WC2R 0BL, UK.

#### CHDL '81

IFIP International Conference on Computer Hardware Description Languages and their Applications will be held August 31, September 1 and 2 1981 in Kaiserslautern, Federal Republic of Germany. Organized by IFIP in co-operation with IEEE Computer Society, ACM, GI (Gesellschaft für Informatik) and NTG (Nachrichtentechnische Gesellschaft).

Five copies of full length papers in English to be received by the Programme Committee before January 26, 1981.

For more information contact: Prof. Reiner Hartenstein, Universität Kaiserslautern, Fachbereich Informatik, Postfach 3049, D-675 Kaiserslautern, F.R. Germany.

#### Second International Conference on Small and Special Electrical Machines.

Organized by the Institute of Electrical Engineers in association with the IEEE (UKRI Section), the Institute of Mathematics and its

Applications and the Institute of Physics, 22-24 September 1981. The conference will be held at the Institute of Electrical Engineers, Savoy Place, London, WC2.

The aim of the conference is to discuss recent development and new applications in the field of small machines, micromachines, and machines of special design (which are generally, though not essentially, small). Systems of machines-plus-electronics are specifically included, which embody small or special machines for servo control, variable- and change-speed, etc. All fields of application are embraced, including office machinery, domestic equipment, and automatic control in aerospace, transport and industry. Design, performance, test procedures, control methods and applications requirements, are covered.

Those intending to offer a contribution should submit a 250-word synopsis together with, if possible, some indication of the type of figures and illustrations, if any, to be used in the final paper, before 3 October 1980.

The authors whose synopses are selected for development into full contributions for further consideration will be requested to provide a typescript of not more than 3,000 words of text, or correspondingly less if illustrations are included, for assessment by 23 March 1981.

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

## NEWS OF THE SECTIONS

### GERMANY SECTION

In the past months the Section co-supported the very successful Eurocon 80 Meeting and Exhibition in Stuttgart as well as Conferences on "Tubes and Display" in Garmisch, and "Precision Electromagnet Measurement" (CPEM) in Braunschweig.

A Member-Meeting was held during Eurocon with participation of the Regional Director Dr. Poortvliet. The President of IEEE, Dr. Leo Young and Top Executives met with the Board of Eurel at Schloß Friedrichsruhe for discussion of future forms of co-operation. Professor Kaiser (Stuttgart) and Professor Engl (Aachen) were honoured as new IEEE-Fellows on that occasion.

A meeting of the Executive Committee of the German Section was held early in July at the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig on invitation by Professor Kind, President of the PTB. It was followed by a social evening with about 20 members of the Braunschweig area.

Occasional difficulties and delays with IEEE publications have been specially considered. Members experiencing problems with page charges for IEEE-Journals are invited to contact the German Section via one of its officers.

Membership development continues positive, particularly for student members around Universities.

### UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

There will be an IEEE "sponsor's stand" at the International Broadcasting Convention to be held at the Metropole Conference and Exhibition Centre, Brighton, on 20-23 September 1980. Any members attending are invited to assist in keeping this stand in good order. If you can help, please contact B. W. Osborne (Section Chairman) on 01-942 8900, Ext. 236, or Prof. D. R. Wilson (Membership Development) on 01-486 5811.

The Section is often looking for members to help with Section activities, e.g. with the various chapters, or on an organizing committee of a jointly sponsored conference. Assistance will also be needed in the preparation of copy for this Newsletter. If you would like to be considered, please send personal information (including areas of

technical interest and details of publications etc.) to the Secretary, Dr. G. H. Byford, RAF Institute of Aviation Medicine, Farnborough, Hants, GU14 6SZ, or to the Chairman.

Active chapters in the Section now include Circuits and Systems (CAS), Control Systems (CS) and Professional Communication (PC). It is also hoped that the chapter on Education Technology will become more active.

The inaugural meeting of the Chapter on Control Systems was held at the Control Systems Centre, University of Manchester Institute of Science and Technology, on 30 April 1980. The following Officers were elected:

Chairman: Dr. M. J. Grimble (Sheffield City Polytechnic); Vice-Chairman: Prof. N. Munro (UMIST); Secretary: Dr. P. M. Taylor (University of Hull); Treasurer: Dr. V. Fernando (University of Sheffield); together with the following committee members: Dr. C. Carter, Dr. R. Clarke, Dr. S. Fakhouri, Dr. O. Jacobs, Dr. N. Karcianas, Dr. R. Patel and Dr. I. Postlethwaite.

Following the committee meeting, Prof. H. H. Rosenbrock (UMIST) gave a seminar entitled "Social Aspects of Automation" which was well received by an audience of over thirty people.

Further information on the Chapter and its activities can be obtained from the Secretary, Dr. P. M. Taylor, Department of Electronic Engineering, University of Hull, Hull, HU6 7RX. Tel: (0482) 46311, Ext. 7113.

The next Section Meeting, to which all members are invited and visitors are welcome, will be held at Imperial College (Department of Electrical Engineering) at 18.00 on Thursday, 13 November (tea at 17.30) when Mr. C. S. den Brinker, Technical Director of Redifon Telecommunications, will speak on "Some Thoughts on the Future: Compromises in Radio Communications."

An introductory course on Microprocessors, arranged by the City University jointly with the CAS Chapter, is to be held on 29-31 October 1980 at the Portland Heights Hotel, Portland, Dorset. For information contact Miss Eileen Baker at the Microprocessor Laboratory, The City University, Northampton Square, London EC1 0HN, or telephone: 01-253 4399, Ext. 420.

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