

# 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

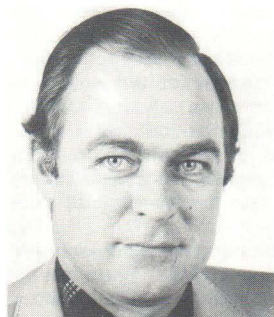
Regional Director: D. C. J. Poortvliet

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

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FEBRUARY 1980

## REPORT OF THE REGIONAL DIRECTOR



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

Just before the second Region 8 Committee meeting in 1979 the results of the annual IEEE elections became known. The results of the election for President were: Leo Young 22,947 votes and Burkhard H. Schneider 18,544 votes, so the 1980 President of the IEEE is Leo Young. The Region 8 votes were 809 for Leo Young and 532 for Burkhard Schneider. So only 1,341 members of Region 8 actually voted. This is less than 20% of all voting members, which is a disappointing result. I wonder what can be done to improve the response of the members? If you have suggestions please let me know. The 1980 Executive Vice-President is C. Lester Hogan with 35,552 votes.

The second Region 8 Committee meeting took place in London on November 9 and 10. Present were Poortvliet (Benelux), Winton (UKRI), Bolinder (Sweden), Arink (Benelux), Becker (Denmark), Tallqvist (Finland), Voge (France), Proebster (Germany), Protonotarios (Greece), Baal-Schem (Israel), Sowinski (Poland), Tove (Sweden), Kartaschoff (Switzerland), Russell (UKRI), Giddings (UKRI), Van der Wulp (Benelux), Smolinski (Poland), Williams (UKRI), and Lucas (IEEE Headquarters, Membership Development).

Although quite a few Section Chairmen could not be present I considered this meeting as extremely good. The problems in Region 8 were discussed quite extensively with a proper spirit. The most important agenda items were:

- Transnational affairs
- IEEE Executive Committee meeting in London
- New Sections
- Financial position of Region 8
- EUROCON 80
- Mediterranean Conference on Electronics
- Nomination of Regional Director 1981/1982
- Regional boundaries
- Newsletter
- Student activities and membership development
- Continuing education.

In January 1980 Region 8 will have a new Section in Austria. The members in Portugal and Morocco have expressed the desire to establish a Section as well. The financial position of Region 8 is precarious. Discussions to improve this situation are still going on. Prof. Proebster reported on EUROCON 80 and presented the preliminary programme. To my opinion this conference is very worthwhile to attend. Remember Stuttgart, March 24-28, 1980!

As a result of the co-operation between IEEE Region 8 and EUREL, the EUROCONs will be organised mainly in EUREL area, which excludes several Sections in Region 8. It is therefore that the Israel and the Greece Sections proposed a second IEEE conference in Region 8 to be organised by the Mediterranean Sections as Egypt, Greece, Israel, Italy and Spain. The Region 8 Committee approved this proposal unanimously.

The proposal of the Region 10 Director, Prof. S. Y King (Hong Kong) to incorporate the whole of Africa with Region 8 was discussed again.

The majority of the Committee decided that under certain conditions this proposal could be accepted and asked the Region 8 Director to work out this proposal with IEEE staff.

The Nominating Committee (consisting of Bolinder, Russell and Stumpers) for Regional Director 1981/1982 proposed three candidates. The Committee decided unanimously that only two names should be put forward to the ballot. I hope I can introduce the two Regional Director candidates in the next Newsletter.

On October 20 I arrived in Tel Aviv, Israel, to attend the 11th Convention of Electrical and Electronics Engineers in Israel, organised by the IEEE Israel Section, chairman Dr. Baal-Schem, who was also the chairman of the Convention and co-sponsored by the Electrical Engineers Section of the National Association of Engineers and Architects in Israel, the Technion in Haifa and the Israel Section of IERE. The 100 papers presented, most of them in Hebrew, seemed to be of high quality. About 1,600 participants registered, and there was an impressive exhibition. The keyboard speaker at the opening session was Mr. Y. Maayan, Director General of the Ministry of Defence, on the Topic "Israel Defence and the Local Electronics Industry".

On October 26 I had a lunch meeting with the President U. Stock and other representatives of the Association of Engineers and Architects in Israel and representatives of the IEEE Israel Section where we discussed the formal co-operation between the two organisations. I want to thank President Stock for his hospitality. The Israel Section did everything to make my stay as interesting as possible and my special thanks are due to chairman Baal-Schem and secretary Hoyda.

On November 8 I attended the Executive Committee meeting of the UKRI Section. It was quite an experience to notice how efficiently the largest Section of Region 8 is organised. After the meeting Dr. Townsend gave a fascinating lecture on "Can Broadcasting Communicate?". This event was organised by the Professional Communication Chapter.

In December I attended meetings in New Orleans of the Ad Hoc Committee on International Activities, the Annual Assembly, the Regional Activities Board (RAB), the Long Range Planning Committee (LPRC) and the Board of Directors (BOD).

In the Ad Hoc Committee meeting I reiterated that a separation of professional activities in the IEEE is necessary and that the transnationality of the IEEE should demonstrate itself in technical activities. The professional activities in the non-U.S. Regions are taken care of by the local national societies while in the U.S. the United States Activities Board (USAB) should take care of these activities. The 1980 President Leo Young decided on a continuation of the Ad Hoc Committee. All non-U.S. Directors are now members of this committee and I have been appointed as chairman.

The result of the Annual Assembly election for 1980 was the following: Vice-President - Educational Activities: Ben Leon; Vice-President - Professional Activities: Richard Gowen; Vice-President - Publication Activities: T. H. Bonn; Vice-President - Technical Activities: Robert Larson; Vice-President - Regional Activities: Larry Wilson; Treasurer: Don Brereton; Secretary: Bruno Weinschel; Director Standards Activities: I. N. Howell, and Executive Director: Erik Herz.

RAB supported the proposed reconsideration of the Region 8 boundaries and supported also the idea of putting Sections which do not obey the bylaws on probation. The LPRC discussed extensively the reports on the co-operation between National Societies and IEEE Sections and the possible reorganisation of the IEEE boards.

At the BOD meeting the EUROCON 80 chairman Walter Proebster reported on the outline plans and objectives for this conference and announced that EUROCON 82 will be held in Copenhagen.

Finally, President Suran presented a review of the diverse operations of the Institute, paying special attention to the transnational character of the IEEE. It was a great experience working with him.

January 2, 1980

DICK C. J. POORTVLIET  
The Hague, The Netherlands,

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



## EUROCON 80, STUTTGART, GERMANY March 24-28, 1980

If you are interested in learning about the latest trends and applications in micro-electronics, then you should attend EUROCON 80, to be held in Stuttgart, Federal Republic of Germany, on March 24-28. This Conference is sponsored by IEEE Region 8, EUREL and VDE, and is under the patronage of Dr. Volker Hauff, German Minister for Research and Technology. Such good progress has been made that already three months before the Conference it is clear that taking together the quality of the programme, the wide scope, and the number of participants, EUROCON 80 will be the most important meeting on micro-electronics so far held in Europe.

Over 300 papers have been offered, enabling the best to be selected and a high quality programme of 160 papers to be presented. Among all these arrangements, only the number of participants in the technical exhibition has so far not quite lived up to expectations, although many leading companies are among those who have taken space.

EUROCON 80 starts on the afternoon of Monday, March 24, with keynote speeches by Dr. F.-R. Guntzsch of the German Ministry of Research and Development; Sir Robert Clayton, Technical Director, General Electric, UK; Dr. U. Haier, Member of the Board of Siemens, Germany; Mr. B. O. Evans, Vice-President, IBM, USA; Dr. G. Lorenz, Member of the Board of Philips, Hamburg; and Dr. P. Aigrain, French Secretary of State for Technology.

Four parallel sessions on the main themes of the Conference – Technology of micro-electronics; Micro-electronics in telecommunications and data processing; Electronics and electrical power systems and control and other applications of electronics and micro-electronics – start on Tuesday morning and continue through Friday morning. There is an interval in these sessions on Wednesday afternoon, when participants can take part in a visit to one of fifteen local companies to see highlights of their research, development and manufacturing activities.

The following are among the many other speakers and topics of particular interest:



*The so-called "New Castle" and part of the gardens in the city of Stuttgart, walking distance from the University where EUROCON 80 will take place.*

H. Pfeiffer, IBM, US, on the state of the art in electron beam lithography for high volume VLSI device production; L. Kobbitsch and F. Matthias, SEL, Germany, on microprocessors in future system design; Prof. H. de Man, Catholic University of Leuven, Belgium, on CAD techniques for VLSI.

K. Nagasawa, NTT, Japan, on general purpose intelligent controller with 16-bit microprocessor; B. Roche, CNET, France, on the use of micro-electronics in the design of digital systems; M. Fishman and I. Livny, Israel Electro-Optical Industry, Israel, on OCR alignment and size normalisation; W. Endres, FTZ, Germany, on man-machine speech communication; J. O. Voorman, Philips, Netherlands, on analogue filters – from hybrid towards monolithic integration; G. de Cataldo and others, Catania University, Italy, on the use of a microcomputer for a low frequency digital filter.

K. U. Stein, Siemens, Germany, on the status and trends in MOS power devices; A. Kelemen and M. Imecs, of the Cluj-Napoca Polytechnic, Roumania, on using a microprocessor for speed control of an asynchronous motor; Shimy Mansour and Alhaider, Riyadh University, Saudi Arabia, on a static inverter for induction motors; J. Allos, University of Baghdad, Iraq, on a variable phase shift automatic regulator; J. L. Boussin and others, on reliability evaluation by the Markov processes.

Prof. L. H. Zetterburg and others, Royal Institute of Technology, Stockholm, Sweden, on a microprocessor system for the real time analysis of EEG; M. Jatteau, LEP, France, on new trends in nuclear medicine; P. Guerrini and others, University of Genoa, Italy, on analysis and automatic classification of leukocytes; P. Sutton and others, London University, England, on medical signal processing using microprocessors; W. Pollak, University of Saskatchewan, Canada, on a computer model of muscle control.

W. Henning and U. Borcke, Siemens, Germany, on microelectronic position sensors; P. Mueller and H. A. Schroepel, Teldix, Germany, on microprocessors in navigation systems; J. C. Martin and others, Centre Electronique Horloger, Switzerland, on a review of microprogrammed wrist watches; B. G. Wurst, Bosch, Germany, on automotive electronics.

Special attention has been given to arranging a students' programme; plans already made include a limited amount of low-cost accommodation, a reduced registration fee, and two half-day tutorial sessions.

The Conference fees are as follows (the first figure applies to those who register before March 1): Members of the IEEE and of National Societies which are members of EUREL – DM 280/DM 320; Non-members DM 350/DM 380; Student members DM 50/DM 80; Student non-members DM 100/DM 140.

Registration forms are available from EUROCON 80, VDE, Lautenschlagerstrasse 21, D-7000 Stuttgart 1, Federal Republic of Germany (Tel: 0711 785 7657). Do not write to this address for hotel accommodation; write to Fremdenverkehrsamt Stuttgart, Lautenschlagerstrasse 3, D-7000 Stuttgart 1, Federal Republic of Germany (Tel: 0711 299 411). Students requiring low-cost accommodation should not apply to the Fremdenverkehrsamt but should do so on their registration forms and they will be advised of the accommodation reserved for them.

Other features of the EUROCON 80 programme are three panel discussions, on the future of micro-electronics, on the role of technology transfer in stimulating innovation, and on the social impact of micro-electronics. In addition, the programme includes sightseeing tours for persons accompanying participants and social events for participants and social events for participants and those accompanying them, namely a chamber music concert, a wine tasting evening, and a performance of "The Taming of the Shrew" by the world-famous Stuttgart Ballet.

Technical presentations at EUROCON 80 will be in the English language only but German may also be used in the panel discussions.

## INSTITUTE NEWS

### Electron Device Journal Begun

IEEE Electron Device Letters will be IEEE's first fast letters journal. All Electron Devices Society members will receive the new journal as part of their fee, starting in 1980. Non-members will be able to subscribe at \$20.

### Management Review Available

IEEE Engineering Management Review, a quarterly reprint journal formerly for members of the Engineering Management Society, will be available in 1980 to other IEEE members at \$6 per year. Engineering Management Society members will still receive the review as well as the EM Transactions as part of their dues.

PUB and TAB have approved this expanded availability of Engineering Management Review as a two-year experiment.

### IEEE Prize Paper Award Established

The Board of Directors established a new IEEE Prize Paper Award, the Donald G. Fink Award "for the outstanding survey, review, or tutorial paper in any of the IEEE Transactions, journals, magazines, or Proceedings" issued between January 1 and December 31. The award, consisting of a certificate and \$1,000, will be funded by the Life Member Fund Committee.

### Fellow Grade Nominations Asked

New Fellow nomination kits for 1980 are now available upon request to the staff secretary of the Fellow Committee at Headquarters, attention Dolores Wright-Riker. All organisational units are encouraged to submit nominations by April 30, 1980, of candidates considered qualified for elevation to the Fellow grade.





# Computer Science & Technology:

## A Technique for Software and Systems Design

by **R. J. LANO**, *TRW Systems and Energy, Inc., California, U.S.A.*

1979 124 pages US \$29.25/Dfl. 60.00

One of the increasingly significant problems facing the system designers and master planners of today is the timely and accurate definition of system element interfaces and task or activity interrelationships.

This book presents the N-squared ( $N^2$ ) chart, which is a new technique for the definition, analysis, tabulation, and description of functional and physical interactions and interfaces. The technique presented is not limited to any particular field, discipline, market area, or system type. The  $N^2$  chart technique is simple and easy to understand, structured and methodical, top-down in nature, communicative of the design, and forces a uniform level of design consistency. The  $N^2$  chart is an effective tool for the integration of all of the people, products, procedures, and paper that make up any given system.

## Methodology in Systems Modelling and Simulation

Proceedings of the Symposium on Modelling and Simulation Methodology, held at the Weizmann Institute of Science, Rehovot, Israel, 13-18 August, 1978

edited by **BERNARD P. ZEIGLER**, *Weizmann Institute of Science, Israel*, **MAURICE S. ELZAS**, *Wageningen Agricultural University, The Netherlands*, **GEORGE J. KLIR**, *State University of New York, U.S.A.*, **TUNCER I. ÖREN**, *University of Ottawa, Canada*.

1979 551 pages US \$65.75/Dfl. 135.00

This is the first book devoted to the methodology of modelling - the process of constructing, validating and organizing models of large scale, complex, multifaceted systems. The advent of large memory, high speed computation and information storage media has radically changed what was formally regarded as the "art" of modelling. The premise of this book is that the process of systems modelling can be made more effective, reliable and greatly speeded up by interactive computer assistance. To this end it presents conceptual bases for the development of computer based modelling methodologies, the integrated model/data bases which support them, and the software tools employable to enhance the processes of model construction, simulation and validation.

## Performance of Computer Systems

Proceedings of the 4th International Symposium on Modelling and Performance Evaluation of Computer Systems, Vienna, Austria, 6-8 February, 1979. Organized by the International Institute for Applied Systems Analysis.

edited by **M. ARATO**, *SZÁMKI, Budapest, Hungary*, **A. BUTRIMENKO**, *Laxenburg, Austria*, and **E. GELENBE**, *IRIA-Laboria, Rocquencourt, France*.

1979 576 pages US \$70.75/Dfl. 145.00

A discipline under the broad title of Computer System Modelling and Performance Evaluation has come into existence within computer science and engineering. The basic motivation for this discipline is to create the tools for the quantitative and rational systems analysis, design and optimization of complex computer systems. This area is goal oriented in its outlook: problems are tackled primarily when practical impact of the solutions can be foreseen. A number of key topics having strong potential for continued growth have been identified in this work. A multitude of case studies of the use of probabilistic models of computer systems is here documented.

Another key subject matter within computer system performance evaluation is the analysis of deterministic schedules of computations and of tasks. Simple statistical models of computer systems have also been proposed and applied in this book, both in the characterization of work-loads and in order to provide global cause-and-effect relationships for computer systems.

## Teleinformatics 79

Proceedings of the International Conference on Teleinformatics, Paris, France, 11-13 June 1979

edited by **E. J. BOUTMY**, *Philips Corporate Communications, The Netherlands*, and **A. DANTHINE**, *Université de Liège, Belgium*.

1979 328 pages US \$41.50/Dfl. 85.00

Today's novelties, like Teletext, Teletex, Viewdata and Personal Computing are just the beginning of a revolution in our ability to interact with information systems, computing services and indeed with each other, in new and far more effective ways than ever before.

Against this background, TELEINFORMATICS 79 explores and highlights the anticipated evolution and impact of Teleinformatics over the next ten years.

## COMPUTER-AIDED DESIGN of Digital Electronic Circuits and Systems

Proceedings of a Symposium, Brussels, November 1978

edited by **GERALD MUSGRAVE**, *Brunel University, U.K.*

1979 334 pages US \$44.00/Dfl. 90.00

This book is concerned with the computer-aided design of digital systems at all levels - from the conceptual design and specification through the levels of synthesis, simulation and test pattern generation.

The symposium was the result of a study project initiated by The Commission of the European Communities (EEC) in the field of CAD of digital systems which called for a world-wide data collection on existing tools and methods and their analysis. The first part of the proceedings is a collection of papers giving the state-of-the-art on product specification and synthesis, modelling and logic simulation, design for testability and layout problems for chip and PCs. These papers, given by leading academics, are followed by a set of papers covering the same topics from leading industrialists practicing the art. Then, a group of papers giving an outline of the EEC study project, its methodology, and findings is followed by a report on the main themes of discussion at the symposium and the action perspective of the EEC.

## Methodology in Computer Graphics Seillac 1

IFIP Workshop on Methodology in Computer Graphics, Seillac, France, May 1976

edited by **R. A. GUEDJ**, *Thomson-CSF, Central Research Lab.* and **H. TUCKER**, *NEUCC, Technical University of Denmark*

1979 218 pages US \$29.25/Dfl. 60.00

Techniques and tools for computer manipulation of graphical information have proliferated rapidly during the past few years. This work has led to the development of numerous software packages for interactive as well as non-interactive graphics. The need for standardization, strongly felt by most people involved in computer graphics, together with the realization that there exists a lack of clear understanding of many of the major concepts involved in graphic systems, led to the establishment of this Workshop, the aims of which were to study the basic issues and to clarify the underlying concepts so that a better understanding of graphic systems might be achieved.

**North-Holland Publishing Company:**

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



### Improved M/SM Application and Elevation Kits Available

The Member/Senior Member application and elevation kit (B-5) has been simplified so that the forms reduce the impression of difficulty. MDC is also developing an accompanying brochure to explain the advantages of seeking the higher grade of membership. Supplies of the B-5 elevation kit are available now from MD/NY.

### TAB Newsbriefs Introduced

The Technical Activities Department has introduced a newsletter entitled "Technical Activities Newsbriefs" designed to consolidate important TAB and Institute-wide information in a bi-monthly

publication. A comprehensive IEEE Administrative Meetings Calendar is also included with each edition. Newsbriefs is distributed on a complimentary basis. If you would like to add your name to the mailing list, write to Audrey R. Bickel at Headquarters.

### "Standard Metric Practice" Revised

A revised edition of IEEE Standard Metric Practice is now in print and is being canvassed for approval as an American National Standard. The revised standard changes the letter symbol for the litre and introduces a new unit for dose equivalent – the sievert. It urges the use of the International System of Units (SI) plus a limited group of non-SI units.

## REGION 8 NEWS

### Lecture Tour by the 1979 Alexander Graham Bell Medal recipient, Dr. Christian Jacobaeus

Dr. Jacobaeus will be giving a series of lectures throughout Region 8 during 1980. He has already given a lecture in Copenhagen, Denmark, entitled "The Telephone Industry – an Industry in Transition" and "Developments in Satellite Communications" during the period November 14 and 15, 1979. He has agreed the following provisional programme for 1980 to give similar lectures in Finland, Norway, Poland, Greece, UK, Netherlands and France.

Finland	}	February 25-29	In association with
Norway			National Societies
Poland		April 8-11	In association with
			National Society
Greece		April 21-30	—
UK	}		
Netherlands		September 8-12	In association with
France			National Societies

Dr. Jacobaeus is a member of the Swedish Academy of Engineering Sciences and its vice-chairman during the period 1969-71. He was the recipient of the Academy's Major Gold Medal in 1976. He was elected a member of the Royal Swedish Academy of Sciences in 1974 and has been a Fellow of the IEEE since 1977. He has served on a number of governmental technical committees over the years and in 1978 received an honorary Doctor of Electrical Engineering degree from the University of Lund in Sweden.

### Microprocessor Continuing Education Course in Warsaw, Poland

It is planned to hold a microprocessor continuing education course in Poland (Warsaw) on May 14-16, 1980. The course will be given by Dr. A. C. Davies of the City University of London, and Prof. Keith Doty, of the University of Florida. The course will be held in conjunction with their national society.

## MEETINGS IN REGION 8

### Communication Satellite Antenna Technology

The five-day short course on "Communication Satellite Antenna Technology" will provide an up-to-date survey of problems related to space antennas and will cover such topics as pattern computation of reflector antennas, contoured beam synthesis, earth station antennas, feed systems, application of GTD and numerical techniques, propagation effects, and polarisation effects.

It is directed by Giorgio Franceschetti and Raj Mittra and will be held April 14-18 1980 in Positano (a resort area near Naples, Italy).

Lecturers include H. Bach (Technical University of Denmark), O. M. Bucci (University of Naples), F. Carassa (Polytechnic Institute of Milan), C. Dragone (Bell Laboratories, USA), G. Franceschetti (University of Naples), J. Jacobsen (Denmark), R. Mittra (University of Illinois) and A. W. Rudge (ERA Technology Ltd., UK). J. Ansted (ESA) will deliver a luncheon talk and participate in a round-table discussion.

The Registration Fee will be around \$400. This fee will cover all course material and refreshments. The course will be held in Positano, a resort area south of Naples, situated on the well-known Amalfi coast.

Interested participants are urged to inform Prof. Franceschetti as soon as possible in order to guarantee attendance.

Further information from: Prof. Giorgio Franceschetti, Co-Director, CSAT Short Course, Istituto Elettrotecnico, Università de Napoli, Via Claudia 21, 80125 Napoli, Italy.

### Communications 80 – Communications Equipment and Systems

Communications 80 will be held at the National Exhibition Centre, Birmingham, England, from Tuesday April 15 to Friday April 18, 1980. It will be the fifth in a series with the overall theme "World of Communications". A major change is the introduction of a separate Business Communications Systems theme. To facilitate this logical move, the theme of Defence Communications has been dropped.

On the inaugural day, the theme will be Communications in the Service of Mankind and on each of the subsequent three days a single user theme will be highlighted throughout the conference sessions and in the programme of official luncheons.

Tuesday	April 15 – Communications in the Service of Mankind
Wednesday	April 16 – Public Telecommunications
Thursday	April 17 – Business Communications Systems
Friday	April 18 – Civil Radio and Emergency Communications

Communications 80 is again supported by the International Telecommunication Union (ITU); the Home Office; the British Post Office; and, for the first time, by Cable and Wireless; the Electronic Engineering Association; and the Telecommunication Engineering and Manufacturing Association.

The conference is organised by the Institution of Electrical Engineers, in conjunction with other international learned societies, and will be held in the conference centre at the Metropole Hotel, adjacent to the exhibition halls.

Detailed conference programme and registration form available from: IEE Conference Department, Savoy Place, London WC2R 0BL, UK.

### International Conference on Effective Use of Electricity in Buildings

Organised by the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers Inc. (UK and Republic of Ireland Section), Chartered Institute of Building Services, Institution of Electrical and Electronics Technician Engineers, Institution of Mechanical Engineers, Royal Institute of British Architects, the conference is to be held at the IEE, Savoy Place, London, from April 29 to May 2, 1980.

This conference will bring together all the professions concerned with building design to review new developments in electric utilisation in an era of change. The aim is to stimulate further progress. New technology and improved concepts are already challenging traditional design methods in the wake of a rapidly changing energy situation. During the next twenty years, energy prices must be expected to rise in real terms. As gas and oil become scarcer and more costly, owners and designers of buildings will be looking for electricity more than before as the predominant energy input. Conservation and improved use of electricity will become an essential aspect of design for new buildings, and remedial work on existing buildings.

Most of the topics embraced by the programme are applicable to buildings constructed throughout the world, and participants should benefit from an international exchange of knowledge as well as an interdisciplinary cross fertilisation of ideas.

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

### Progress in Electron-Tubes and Displays

A conference with this title is being organised by the NTG in co-operation with the Germany section of IEEE. It will be held in Garmisch-Partenkirchen from May 21-23, 1980. Some forty papers are to be presented, mainly in German but with two in English. This title differs from that given in the August 1979 issue.

Further information from: VDE-Zentralstelle Tagungen, Stresemannallee 21, D-6000 Frankfurt am Main 70, Germany.

### 1980 L'Aquila Workshop on Digital Signal Processing

In addition to the information given in the last Newsletter, the call for papers now issued reports that the following sessions will be organised: Spectral analysis (Chairman: Jont Allen, Bell Laboratories); Adaptive methods in signal processing (Chairman: Theo Claasen, Philips Research Laboratories); Modelling of sources and systems (Chairman: René Carré, ENSERG); Digital representation of signals (Chairman: John Makhoul, Bolt, Beranek and Newman); Architectures for signal processing: I. theoretical aspects (Chairman: Gary Kopec, MIT), II. hardware aspects (Chairman: Maurice Bellanger, TRT).

The workshop is to be held at L'Aquila, Italy, September 9-11, 1980.

### Fifth International Wroclaw Symposium on Electromagnetic Compatibility

The aim of the Symposium is to review the science of EMC leading to better understanding of current trends. All aspects of EMC are planned



with some preference to radio-technology. Specific topics are: Predicting RFI effects in devices and systems; EM fields, antennas and propagation; EMC and cable communication; Spectrum management – computer assisted; Immunity and susceptibility; Spectrum economy and impact of new techniques on EMC; Lightning and EMC; Computer assisted spectrum monitoring and direction finding; National and international co-operation in EMC – regulations, limits, standards and specifications; Harmful effects of RF energy; Shielding and filtering; Mathematical and computer models in EMC studies; Measuring methods and smart instrumentation; Spectrum pollution and specific sources of RFI; Radio system planning; Others.

A specialised exhibition is planned during the Symposium and interesting technical visits will be offered.

The Symposium will be held in convenient conditions on the premises of the Wrocław Technical University or in a suitably chosen place in the vicinity of Wrocław, September 17-19, 1980.

Further information from: Mr. W. Moron, Secretary General, EMC Symposium, Box 2141, 51-645 Wrocław 12, Poland. Tx 0712118 il pl. Telephone: 482-815.

#### International Broadcasting Convention 1980

The IBC 80 Technical Programme of papers and discussions for this important biennial convention follows the now well-established pattern covering new techniques, systems and development in sound and television broadcasting and allied fields. Papers are invited on Microprocessors and minicomputers in broadcasting; Studio lighting technology; Studio design and OB facilities – automatic and digital systems; Transmitters, transposers and antennas; Sound systems; Lightweight programme equipment; Television cameras; Electronic graphics; Visual effects and other studio equipment; Signal recording and storage; Propagation and service planning, including satellite broadcasting; Cable and optical fibre distribution systems; Future possibilities in receiver design and domestic recording; Audio and video measurement technology; New broadcasting services and systems.

The IBC is sponsored by the Electronic Engineering Association, the Institution of Electrical Engineers, the Institute of Electrical and Electronics Engineers, the Institution of Electronic and Radio Engineers, the Royal Television Society and the Society of Motion Picture and Television Engineers.

IBC 80 will be held September 20-23, 1980, at the Metropole Conference and Exhibition Centre, Brighton, UK. This new venue provides a greater exhibition area and conference facilities to meet the continuing growth of the IBC.

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

#### 1980 International Conference: Security Through Science and Engineering

The principal emphasis of this conference, devoted to engineering and science applied to law enforcement, security and crime prevention, will be directed toward the research and development aspects of this field of engineering. A conscientious effort will be made to communicate the significance of our developments to other interested groups. The conference will be held September 23-26, 1980, at West Berlin Technical University, West Berlin, West Germany.

The conference sponsors are: West Berlin Technical University, University of Kentucky, Lexington Section IEEE and IEEE Aerospace and Electronic Systems Society, in co-operation with: Technical Groups of the Institute of Electrical and Electronics Engineers: Electromagnetic compatibility; Microwave theory and techniques; Systems, man and cybernetics; Vehicular technology.

Further information from: Sue McWain, Conference Co-ordinator, Office of Continuing Education, College of Engineering, University of Kentucky, Lexington, Kentucky 40506, USA. Telephone: (606) 257-3971.

#### Journées d'électronique

The "Journées d'électronique" are organised annually by the Electronics Laboratory of the Swiss Federal Institute of Technology in Lausanne (EPFL) and co-sponsored by IEEE Region 8 and the IEEE Switzerland Section. The aim of these tutorial oriented meetings is to present a timely technical subject of interest to various fields. Simultaneous translation in French and English is normally provided. The "Journées d'électronique 1979" were devoted to the subject "Microprocessors: a tool for the future".

A mostly Swiss audience of around five hundred persons attended this three-day conference. The first day was dedicated to tutorial lectures presented by invited speakers from Germany, the USA and Switzerland. The fast evolution of microprocessors, the trends in software, interfacing, standardisation and testing were stressed. The two following days were devoted to more specific subjects such as application in various fields, reliability, special architectures, programme development and education problems; two panel discussions were also organised. Proceedings, predominantly in English, have been published and are available in limited supply (FrS. 50.-).

The 1980 edition will be held at EPFL during October 7-9, with the topic "Limits to miniaturisation". Both small mechanical and electronic aspects of this problem will be covered.

Further information from: Journées d'électronique, EPFL, Bellerive 16, CH – 1007 Lausanne, Switzerland.



## EMI EMC

### EMC — Design and Measurement for Control of EMI

Stockholm, Sweden June 9-13, 1980  
Toronto, Canada July 21-25, 1980  
Five Days Overseas \$895  
North America \$795  
CEU's Awarded: 3.2

#### COURSE OVERVIEW

This dynamic, comprehensive, one-week training course on Electromagnetic Interference (EMI) control and Electromagnetic Compatibility (EMC) design covers the broad RFI/EMI/EMC field. Both intra- and inter-system EMI prediction and analysis at the system/equipment level are thoroughly discussed.

Current EMC specifications, control and test plans, EMC design, EMI control, fix and retrofit techniques are examined and applied to real-life EMI problems. Test methods, procedures and measurement instrumentation which are presently used to detect EMI are reviewed with their application to illustrative examples of various on-the-job EMI tests.

### Grounding and Shielding

Amsterdam, Neth. March 18-20, 1980  
Atlanta, Ga. April 22-24, 1980  
Three Days Overseas \$635  
North America \$535  
CEU's Awarded: 1.9

#### COURSE OVERVIEW

This three-day comprehensive training program covers the design techniques, procedures and rationale for grounding, both for safety and EMI control. The design of shields for cables, circuits, compartments, boxes, equipment, subsystems, systems, buildings and complete vehicles is also presented in this in-depth course. To combat grounding problems the course covers circuit and equipment isolation schemes including balanced networks, optical isolators, isolation transformers, double boxes, chokes and new techniques. Methodology flow-diagram questions and calculations are made for the design and the trade-off benefits of wiring-network, multiple-box-level grounding schemes in the presence of any electromagnetic ambient environment.

### EMI Control in Electronic Data Processing Equipment

London, England May 12-16, 1980  
Five Days Overseas \$895

CEU's Awarded: 3.2

#### COURSE OVERVIEW

This five-day training program presenting Electromagnetic Interference (EMI) control techniques in Electronic Data Processing (EDP) equipment design covers the full line of computer, peripheral and associated interface components. Special attention is focused on mini and microcomputer (microprocessor) EMI control techniques with an evaluation of various logic family noise characteristics. The course stresses design measures for the susceptibility of EDP equipment to everyday RF environments. Emission control standards to insure compliance with applicable portions of CISPR emission specifications as well as FCC, VDE, CSA and other specifications are reviewed.

#### Schedule of Courses

Course Title	Amsterdam, Netherlands	Atlanta, GA	London, England	Stockholm, Sweden	Toronto, Canada
EMI Control in Electronic Data Processing Equipment				June 9-13	July 21-25
Introduction to EMI/RFI/EMC		March 25-27			
Grounding and Shielding	March 18-20		April 22-24		
EMI Control in Electronic Data Processing Equipment				May 12-16	
MIL-STD-462 and System-Level EMI Testing and Procedures	June 9-13				

FOR REGISTRATION AND MORE INFORMATION, CONTACT:

DON WHITE CONSULTANTS, INC. DEPT. ADV-09

(Phone) 01-902 7580

Circle House South, 65-67 Wembley Hill Road

Wembley, Middlesex HA98DF, England

(Telex) 923421 WEMSEC G



## NEWS OF THE SECTIONS

### DENMARK SECTION

During the first ten months of 1979 the Section organised the following activities.

January 31: members of the staff from the Laboratory for Semiconductor Technology, DTH (i.e. the Technical University of Denmark) gave a series of lectures on "Customer Designed ICs: Recent Experiences".

April 30: Dr. Harry Mergler gave a lecture on "A Computer Controlled Ship's Frame Bender for an Automated Shipyard" at the Control Engineering Laboratory, DTH.

September 6: Dr. Th. Lalive d'Épinay gave a lecture on "Interconnecting Microprocessors" followed by a lecture of Dr. Jørgen Høg on "Multiprocessing and the CR80 Computer"; both lectures took place at the auditorium of Christian Rovsing A/S.

October 2: a visit was made to Rigshospitalet (the Copenhagen University Hospital); among other things, some recent equipment was demonstrated which is used in nuclear medicine and in X-ray diagnostics.

Over the past twelve months the membership has increased by about 17%.

### FINLAND SECTION

**Membership Recruitment.** The small number of members in the IEEE Finland Section necessarily makes the basis for activities somewhat restricted. To improve the situation, a recruitment campaign was made this summer. A letter was sent to the members including an IEEE information leaflet to be handed over to a colleague. It was a pleasure to note the favourable result of this semi-personal approach. According to the statistics of September the number of members increased from 84 by 21% in one year. The Student Branches, with recruitment programmes of their own, showed a similar increase.

**Meetings.** The IEEE Finland Section members come from all parts of the country. In the Helsinki region there are some fifty members and an equal number of student members. Because of this small number, the meetings and excursions, of which there were two each during the year, were co-ordinated with the Association of the Electronics Engineers in Finland.

**Visits.** Prof. André vander Vorst visited Finland in May and met all the Student Counsellors and the Section Chairman. This visit, a unifying link between the Section and Region 8 SAC, was most welcome.

### SWEDEN SECTION

A series of interesting and stimulating IEEE lectures on microprocessors was given by Stanley Mazor of Intel Corp. USA who was visiting Sweden as a guest professor at the Royal Institute of Technology in Stockholm during the spring.

Plans are advancing to start a new student branch in Luleå, where a new technical university exists, with an active group of about 25 students interested in electronic instrumentation.

Thanks to the effort of C. A. Wannerskog of SKF and Chalmers University of Technology, IEEE was contributing successfully to a well-attended conference on electronics in property security and home and personal protection, in Göteborg.

During the spring, a seminar will be held by Dr. Jacobaeus, L. M. Ericsson, on the transformation of the telephone industry.

### GERMAN SECTION

Activities centred on the forthcoming EUROCON 80 "From Electronics to Microelectronics" to be held in Stuttgart, Federal Republic of Germany, on March 24-28, 1980, under the general chairmanship of Prof. Proebster. The conference is supported by IEEE Region 8 and EUREL. More than three hundred contributions have been submitted to the Programme Committee. The conference will be augmented by an exhibition featuring novel applications of microelectronics.

The Executive Committee of the German Section met twice: on June 28 and September 24, 1979. In order to support IEEE activities it was decided to invite four additional officers to these meetings with particular responsibility for membership development, student activities (Prof. Kohn, Stuttgart), financial matters (Dr. Berghamer, Munich), and publications (Dr. Schmitt, Hamburg). Over the year membership increased to 686 (from 574 in 1978). Student membership was up by more than 20 due to a special campaign at universities and technical colleges.

The Section co-supports several conferences, generally in co-ordination with the German Engineering Society VDE. Future events include, e.g. the Conference on Precision Electromagnetic Measurements (CPEM, June 23-27, 1980, Braunschweig), the International URSI Symposium on Electromagnetics Waves (August 26-29, 1980, Munich), the International Symposium on Subscriber Loops and Services (ISSLS 80, September 15-19, Munich), and ESSCIRC, the European Solid State Circuit Conference (Autumn, 1981, Freiburg).

### GREECE SECTION

Since the last IEEE Regional Committee meeting in the Greece Section, the active lecture series programme was continued. The "First Workshop on the Contemporary Developments in Power Systems" was completed last April and its proceedings published in one volume. Last June the President of IEEE Jerome Suran with the General Manager Eric Herz and our Region 8 Director Dick Poortvliet visited our Section. Ideas were exchanged and problems were solved in a meeting with the Section officers. Also the President presented to the Greek IEEE members a challenging talk on "The Electronics Revolution". The IEEE Israel Section Chairman Dr. Baal-Schem was invited in the Greece Section and examined with us the possibility of some co-operation between the two Sections. He also presented an interesting talk on the future of telecommunications. A petition was submitted to the IEEE Headquarters concerning the establishment of a Power Engineering Society Chapter. We hope the processes will be completed within a couple of months.

### IRAN SECTION

**Summary.** Activities in the Iran Section were minimal during 1978. There was no significant change in the membership statistics and very little spending. Technical activities involved a single lecture plus planning for other lectures, two conference sponsorships and two student paper competitions, all cancelled due to the unfavourable political situation. Two issues of the Section's quarterly Newsletter appeared in February and June of 1978.

**Membership Development.** IEEE Iran Section had 187 active members (including 16 Senior Members, nine Associate Members and ten Student Members) at the start of the present Executive Committee's term in December 1977. Even though 1978 year-end statistics as well as the subsequent monthly reports have not been received due to irregularities in postal services, no significant change in the above numbers is expected. Some 30% of Iran Section members were foreign residents. Thus, looking beyond 1978, we expect to lose some members as a result of the post-revolution political atmosphere.

**Technical Activities.** Due to the unfavourable political situation in Iran during 1978, Section activities were minimal. The current status and future of Iran's industries was the topic of a lecture in Farsi (Tehran, June 7, 1978) by Dr. Hooshang Sabeti, then President of the Industrial Development and Renovation Organisation of Iran. Other planned lectures as well as preparations for joint sponsorship of the Symposium on Control and System Engineering (Tehran, March 27-30, 1979) and the Second Annual Computer-Aided Design Seminar and Short Course (Tehran, May 5-9, 1979) were cancelled.

Also, two fully planned student paper competitions, one in the general areas of interest to IEEE and the other in the fields of joint interest to IEEE and National Iranian Radio and Television, were cancelled due to uncertain situations in the prize-offering organisations as well as insufficient time in view of campus developments during and after the revolution.

**Section Newsletter.** Two issues of the IEEE Iran Section News (normally published quarterly) appeared in 1978: Vol. 4, No. 1, February 1978, 12 pages; Vol. 4, No. 2, June 1978, 16 pages. Another issue, originally scheduled for September 1978, eventually appeared in February 1979 as Vol. 5, No. 1.

### ISRAEL SECTION

**Membership.** The Israel Section grew from 360 members in April to 377 at the end of September 1979 (including 48 students) and hopes to reach a membership of 400 by the end of the year.

Elections were held in the month of September and it was decided unanimously that the present executive committee should stay on duty for a third year. This committee includes the following members: Dr. J. Ball-Schem, Chairman; Mr. M. Shavit, Vice-Chairman; Mr. R. Hoyda, Secretary; Mr. A. Samuel, Inter-Societies affairs.

**Chapter Activities.** The normal activities of the Chapters included:

A symposium on Computers in Industry held on May 9, 1979, with 150 participants.

A symposium on Computer Networks and Communications Protocols co-sponsored with the Ministries of Communications and Defence R&D. The principal lecturer at this symposium was Dr. J. McQuillan of BBN, and the attendance included more than two hundred engineers.

A meeting with representatives of the industry, on the subject of micro-electronics, with an attendance of fifty engineers.

**Student Branches.** The Student Branch at the Technion, Haifa, is the most active of the three existing branches. The Counsellor is Prof. Klein. Mr. Nazarethy of this branch won the second prize at the Student Paper contest held on April 27, 1979, in Zurich.

The two other branches are at the Tel Aviv University and the Ben-Gurion University. At Tel Aviv University the Counsellor, Dr. H. Ur, is on sabbatical, and has been replaced temporarily by Dr. O. Gitzel.

**The 11th Convention of Electrical and Electronics Engineers in Israel.** The Israel Section of IEEE organised the 11th Convention of Electrical and Electronics Engineers in Israel, held in Tel Aviv Hilton on October 23-24, 1979, with an attendance of 1,600 engineers.



The Convention was co-sponsored by the Electrical Engineers Section of the National Association of Engineers and Architects in Israel as well as by the Technion and the Israel Section of IERE.

The Organising Committee, chaired by IEEE Section Chairman J. Baal-Schem, included representatives from universities, engineering associations and leading electronics industries.

The Technical Programme Committee, chaired by Prof. A. Bar-Lev of the Technion, selected 100 papers out of all the papers received. The Convention was held on the 25th anniversary of the Israel Section and the IEEE President Dr. J. Suran sent special congratulation to the Section on this event.

The Technical Programme included twenty sessions on Communications, Electronic devices, Bio-engineering, Data processing, Power and drive, etc. At each session, attended by tens (and sometimes hundreds) of participants, four to six papers were presented, succeeded by discussions. The Bio-engineering session drew special attention and teachers from a School for Deaf Children came specially to attend a lecture on "A Speech Training System for the Deaf" developed at the Ben-Gurion University.

#### MIDDLE AND SOUTH ITALY SECTION

The membership of the Section rose from July 1978 to July 1979 by 26%.

Since the last news the following events have taken place:

**Section Technical Meetings.** June 7, 1979: University of Rome, Dr. E. Ferrari - "Non-stable electric power systems: new tools for investigation and practical results in the use of stabilising devices"; July 4, 1979: University of Rome, Prof. G. Franceschetti - "Antennas for space communication"; July 12, 1979: University of Rome, Prof. Tatsuo Idoh - "Millimetre Wave Circuits".

**Technical Conferences sponsored by the Section.** May 2, 1979: Rome Section of the Italian Electrotechnics and Electronics Association, Dr. L. Ascione - "Human factor and its importance in the transfer of know-how and technology to developing countries"; September 11-13, 1979: Positano, Group on Electrical Machines of the National Research Council - "Symposium on Power and Measurement Transformers".

**Student Committee.** Meetings have been held on June 26, October 1 and October 29.

#### POLAND SECTION

**Results of Section Elections.** At the Annual General Meeting held on June 1, 1979, elections for the period of two years beginning July 1,

1979, had the following results: Chairman: Prof. dr. inz. Andrzej J. Sowiński, Industrial Institute of Electronics and Technical University, Warsaw; Vice-Chairman: Prof. dr. inz. Wiesław Seruga, Electrotechnical Institute, Warsaw; Secretary/Treasurer: Dec. dr. inz. Zbigniew H. Czyż, Industrial Institute of Telecommunications, Warsaw.

**Technical Meetings.** Most interesting meetings organised during the period covered by this report were as follows: April 28, 1979 - Prof. James S. Hill, representing IEEE S-EMC in the future Fifth International Wrocław Symposium on EMC, International Affairs Committee Chairman, gave the lecture on Electromagnetic Compatibility; October 3, 1979 - Prof. Takayoshi Nakata, EE Department, Okayama University, gave to the Polish audience the lecture "Analysis of Flux Distribution and Estimation of Iron Losses".

**Conferences in Preparation.** Poland Section will co-operate in organising the following conferences in 1980: September 2-5 - ECCTD-80, 1980 European Conference on Circuit Theory and Design, Warsaw, Poland; September 17-19 - Fifth International Wrocław Symposium on Electromagnetic Compatibility, Wrocław, Poland. Four international EMC symposia were successfully held in Wrocław, three in Montreux and Rotterdam.

**Short Course Planned.** Two IEEE Short Courses are planned by the Section: "Microprocessors" by Dr. A. C. Davies in November 1979 or May 1980 (arrangement in co-operation with Mr. M. Giddings, IEEE Region 8 Continuing Education Chairman); "Analog/Hybrid Computer Programming and Simulation" by Ferdinand J. Ricci of IBM, probably in January 1980 (proposed by Mr. J. Gardina, IEEE Education Chairman).

**Membership.** Membership of the Section as of September 30- 1979, was 49.

#### SWITZERLAND SECTION

During summer 1979 the IEEE Switzerland Section has increased its activity by organising additional local meetings in common with ASE/SEV and GESO on subjects in some rapidly growing fields in the electronics industry of western Switzerland: Silicon on Sapphire IC Technology, C-MOS IC Manufacturing, Optical Fibre Cables. the highly active Chapter on Digital Communications Systems organised two major conferences: A Swiss Forum on Digital Communications (Rüschlikon-Zürich, September 11, 1979) and on Distributed Processing in Industrial applications (Bern, November 13, 1979). The autumn excursion on September 29, 1979, attracted 86 members and relatives for a visit to the latest nuclear power station and to a recent and modern automatic parcel sorting centre of the Swiss Post Office. The membership continues to grow and has passed the 800 mark.

### First announcement of a Nato Advanced Study Institute

on

## DESIGN METHODOLOGIES for VERY LARGE SCALE INTEGRATED CIRCUITS (VLSI)

Université Catholique de Louvain - Louvain-la-Neuve - Belgium

July 8 to 18, 1980

The continuing world wide effort (USA, Japan and Europe) to enhance the functional capabilities of Integrated Circuits has led to advanced technologies, capable of producing ever smaller geometries, on ever larger chips. To handle the rapidly increasing complexity of those chips, existing design tools have been enhanced and modified in an effort to cope with the problem. However, the magnitude of the problem is of such an interdisciplinary nature that a review of the basic design methodologies for VLSI is necessary.

#### TOPICS

Technologies for VLSI circuits. Small channel MOS transistors. Basic building blocs and their implementation in MOS technology. Typical examples of basic architectures. Design methodologies: system partitioning, self timed logic, design for testability. CAD tools: interactive layout, symbolic layout, automatic circuits compilers. Design projects which employ the new VLSI methodologies: OM2 (Caltec), X-tree (Univ. of California Berkeley) and a multiproject chip (MIT).

#### LECTURERS

F. ANCEAU (IMAG, Grenoble, France); B. BRODERSEN (UC Berkeley, USA); L. CONWAY (Xerox, USA);  
E. DEMOULIN (Univ. Catholique de Louvain, Belgium); C. MUDGE (Digital Equipment Corporation, USA);  
C. SEITZ (Caltec, USA); C. SEQUIN (UC Berkeley, USA); F. VAN DE WIELE (Univ. Catholique de Louvain, Belgium);  
and from  
Philips Natuurkundig Laboratorium, Eindhoven (The Netherlands) and Katholiek Universiteit Leuven (Belgium).

#### INFORMATION

Please contact

Professor Paul Jespers, Université Catholique de Louvain, Place du Levant 3, 1348 Louvain-la-Neuve (Belgium).

The total number of participants is limited.



## THE CITY UNIVERSITY, LONDON

### MICROPROCESSOR SHORT COURSES

A series of courses will be held during 1980, including both introductory courses and more advanced workshops. Courses at present scheduled are:

Workshop Courses		
5 days	16-20 June 1980	Fee: £238
10 evenings	13 October 1980 and 9 subsequent Mondays	Fee: £118

Introductory Courses		
3 days	27-29 February 1980	Fee: £130
3 days	24-26 September 1980	Fee: £130

Attendance on workshop courses is limited to 12 to permit adequate access to equipment and tutorial guidance.

The workshop courses will incorporate a substantial amount of practical experience, with particular emphasis on the writing, assembling, debugging and testing of assembly language programs, using the Z80 processor as the main example.

Reduced fees are charged for advance registration with payment, and for the February course, a limited number of full-time research students will be accepted for a fee of £26.

Other courses to be offered include a course on future microprocessor trends (in association with IEEE) and courses on PASCAL programming.

Further details of these and other microprocessor courses from:

Dr. A. C. Davies  
Microprocessor Laboratories  
The City University  
Northampton Square  
London EC1V 0HB  
Tel: 01-253 4399 Ext. 420/425/464  
Telex: 263896

## ADVANCED COURSE ON CAD DIGITAL SYSTEMS

BRUNEL UNIVERSITY

8-18 JUNE 1980

### SPONSORED BY EEC AND SRC

### LECTURERS AND GUEST SPEAKERS INCLUDE

M. Breuer, USA  
B. Cohen, UK  
J. Gray, USA  
D. Lewin, UK  
B. Magnhagen, Sweden  
R. McGuffin, UK  
G. Musgrave, UK  
K. Nichols, UK  
J.C. Rault, France  
R. Schauer, USA  
S. Szygenda, USA

### COURSE DIRECTOR

G. Musgrave  
Brunel University  
Dept. Elec. Eng.  
Uxbridge, Middx.  
Tel. 0895 37188  
extension 702

### SCOPE

The residential course will be based upon formal lectures by leading researchers in the field. These will be augmented with presentations by industrialists so as to provide the basis of discussions in seminar and workshop sessions.

### TOPICS AND SEMINARS

Systems specification and methodology  
Design at silicon level  
Circuit analysis  
Modelling and simulation  
Test pattern generation and diagnostics

## UKRI SECTION

The sixteenth annual general meeting of the United Kingdom and Republic of Ireland Section will be held at the Institution of Electrical Engineers, Savoy Place, London WC2, at 18.00 on Thursday, March 20, 1980. Following the meeting, Dr. D. T. Swift-Hook (Head of Applied Physics Division of the Central Electricity Research Laboratories, and visiting Professor at King's College, London) will speak on the subject "Power from other sources".

The Chapter on Circuits and Systems (Chairman Dr. W. Saraga) has meetings arranged at The City University, Northampton Square, London, on February 4 at 18.00, when Dr. O. P. D. Cutteridge will speak on "Automated design of linear systems"; and on February 20 at 17.30, when Prof. Omar Wing of Columbia University will speak on

"Parallel computation - promise and reality". Details of meetings to be held by the Professional Communication and the Educational Technology Chapters will be circulated later. Members and visitors are welcome at these meetings.

Members of the Executive Committee were able to meet the Region 8 Committee members on the occasion of their visit to London on November 9/10, 1979.

The following have been elected to serve the Section from January 1, 1980: Chairman: Mr. B. W. Osborne; Treasurer: Dr. L. Mogridge; Secretary: Dr. G. H. Byford.

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