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# THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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No. 59 AUGUST 1982

# DIRECTOR'S MESSAGE VOTE! VOTE! VOTE!!



Prof. Dr. Walter E. Proebster Director Region 8 1981–82

Within the next few weeks you will receive papers from IEEE Headquarters, New York, enabling you to vote on various matters. Among these matters is a petition which if successful would change the character of the IEEE from a transnational society into a society with interests in the United States only. I do most earnestly ask each one of you to vote on this issue, and to follow the recommendations of the Region 8 Committee and of the Board of Directors, and to vote against the petition.

At present the IEEE Constitution states that IEEE operations shall be world-wide. The petition seeks to restrict the opera-

tions of the IEEE to the United States. I ask you to vote against it because, if it succeeds, the technical and other benefits and services you receive as a member of the IEEE will be very

greatly reduced. If it succeeds you release you will become a second class member of the IEEE. If it succeeds it will bring about a change in the IEEE from a transnational society to a national society at a time when the Institute's dedication to transnationalism has again been confirmed by two years' work which has led to the recent signing of a agreement between IEEE President Bob Larson and Mr. Ib Lønberg, President of the Convention of National Societies of Electrical Engineers of Western Europe (EUREL).

Usually relatively few IEEE members vote – on average only about 15 per cent! – and it is therefore possible for an active minority to change the nature of the IEEE in a way which is against the interests of the majority.

I appreciate that the voting papers you receive are often complex and difficult to understand, and I realise how difficult it may be for you to find the time to study them. Nevertheless, this issue is so vital that I urge you to vote on this occasion, and I ask you, please, to vote against this petition.

To succeed, the petition must be supported by two-thirds of those voting. This means that your vote against the petition will cancel out two votes supporting the petition.

The papers you will receive will also enable you to vote for the Region 8 Director 1983/84. There are two excellent candidates, and I hope you will vote for one of them, and also for the IEEE President-Elect and Executive Vice-President for 1983.

May I ask you all once again - do not fail to vote!

WALTER E. PROEBSTER Boeblingen, Federal Republic of Germany



Robert C. Winton Secretary Region 8

What is Region 8? There are a number of different answers to this question. Region 8 is a geographical area; it is a number of Sections; it is almost 13,000 IEEE members; it is a Committee. Let me expand these answers.

The geographical area of Region 8 covers a considerable area of the world – Western and Eastern Europe, the Near East and all Africa. It is a difficult task for the Region 8 Director to keep in touch over such an area, and involves a very large amount of time and travel.

The Region 8 organization is composed of a number of Sections. The organization is composed entirely of volunteers, and offers of help are always welcome. There

are now 23 Sections; we have a Section in every country in Western Europe, and also in Egypt, Iran, Israel, Nigeria, Poland, Saudi Arabia and South Africa. Sections receive funds direct from Headquarters which, within reasonable limits, they can use as they wish. This permits Section Committees to have a great deal of independence, and to arrange activities to meet the particular needs of their members in harmony with their national societies which provide for the professional development of electronics and electrical engineers. All Sections have an understanding with national societies on how each can benefit their members without acting in competition; in some Sections this understanding is in the form of a written agreement.

The members of Region 8, whether they belong to a Section or not, all receive "Spectrum", "The Institute" and the Region 8 Newsletter, and they can become members of any of the specialized technical Societies and receive their publications on payment of a small additional subscription. Students are a very important part of the membership, and they arrange their own activities through the formation of Student Branches in their own polytechnics or universities.

Members throughout Region 8 have in common not only their interest in electrical and electronic engineering and science, but also their ability to communicate through a common language – English – either by written papers, or by speech, when they meet at international conferences organized by Region 8 or by some other part of the IEEE.

The Region 8 Committee consists of the Director Region 8 (who is Chairman of the Committee), a Treasurer, a Secretary, the Immediate Past Director, the Chairman of each Section in the Region, and appointed representatives each responsible for one of the following activities: Awards and Fellows; Conference co-ordination; Continuing education; Membership development; Region 8 Newsletter; Publications; Student Activities.

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SPECIAL SUPPLEMENT – FORTHCOMING MEETINGS IN REGION 8

# A LOOK AT REGION 8

The principal functions of the Committee are:

To decide how to give members most benefit from Region 8 funds; agree long range plans for the development of Region 8; promote the interests of Region 8 members at Headquarters; draw attention to the effects of IEEE policy on members in Region 8; do everything possible to safeguard the interests of members; act as a channel of communication and co-ordination between Region 8 and Headquarters;

assist Section Chairmen as necessary;

enable Committee members to exchange ideas and experience;

plan future EUROCON and MELECON conferences in broad outline. The Region 8 Committee meets twice a year in various Sections in the Region. Each meeting is of two days' duration. Usually a premier member of the Headquarters permanent staff attends – the General Manager or the Director Field Services. This is of particular value, because they can hear which matters are of concern to the Committee, offer clarification and assistance, and at the same time increase their understanding of Region 8 activities and needs. The Region 8 Committee receives funds from Headquarters, and so has the independence, within reasonable limits, to organise its activities in the manner in which the Committee decides is of maximum benefit to members. Speaking very generally, the Region 8 Committee is concerned with the organization of matters which concern all members and all Sections in the Region; Sections are concerned with organising matters which concern the members in their Section only.

At the start of this article I mentioned the importance of the role of the Director. He, more than anyone else, is responsible for the amount of activity within Region 8, and for the general wellbeing of the Region. Thus, very much depends on the character, dedication and experience of the Director, and on the amount of time he is willing and able to give to Region 8 matters. This is an important point in understanding the Region 8 organization. I ask members to remember it in particular this year when they are presented with the ballot for the next Region 8 Director – and to vote.

R. C. WINTON Secretary Region 8, London, England

# ELECTIONS

### YOU WILL BE RECEIVING SHORTLY BALLOT PAPERS

## FOR THE FOLLOWING IMPORTANT IEEE ELECTIONS.

# PLEASE READ THE CANDIDATES' STATEMENTS WHICH HAVE BEEN

SPECIALLY PREPARED FOR MEMBERS OF REGION 8

## AND

# **USE YOUR VOTE**

# **REGION 8 DIRECTOR CANDIDATES' STATEMENTS**

KARSTEN E. DRANGEID, Dipl El Ing ETH Director of IBM Research Laboratory, Zurich, Switzerland Conferences: International Electron Devices Meeting, Sub-Committee on Solid State Devices, 1970



Karsten E. Drangeid Candidate for Region 8 Director

I am happy to see that our Region 8 is doing well. There are a growing number of stimulating international meetings, workshops, and also interesting local activities in our sections and chapters. All of this is the work of dedicated people in our ranks who recognise the vital need for exchanging basic technical information between professionals. Regional Directors can only make sure that the necessary IEEE administration is there to help and not to hinder these flourishing activities.

In my mind there are emerging issues which will merit special attention from the next Director of Region 8. Our IEEE colleagues in the US have decided to start activities which relate directly to

problems in their specific national environment. I think we should consider corresponding actions.

Region 8 includes not only all of Europe, but also the USSR, Africa, and the Near East. IEEE with its international and strictly technical orientation looks like the right environment to attack suitable technical problems by co-operation between professionals within our region.

Our efforts to maintain and to improve co-operation with national societies have to continue.

The information gap between technological experts and the "man in the street" is growing. It is in the common interest to find ways and means of informing the public about our achievements and their impact on the future life of us all. Such actions could directly contribute to the friendly and respectful coexistence of people and nations in our region.

B. W. OSBORNE, MSc, FInstP, CEng, FIEE, FIERE, FSCTE, SMIEEE, Head of Operational Services Department, Rediffusion Engineering, Kingston-upon-Thames, England

Region 8 Executive Committee 1980-82, UKRI Chairman 1980-82, UKRI Executive Committee 1978-82, Chairman PC Chapter 1979-81, representative on various conference committees including Eurocon '84

IEEE activities in the countries of Region 8

should be intended to complement, and

not to compete with, those of other Insti-

tutions and Societies. IEEE membership

growth can be expected to flourish in a climate of goodwill and of close collabora-

Engineering boundaries are not geographical or political, and the membership

of Region 8 demonstrates the trans-

To ensure that good relations are main-

tained, it is essential for the IEEE to put its

own house in order. There is a need for

closer collaboration between the IEEE

Societies and the Regions, in particular to

avoid "crossed wires" when planning

tion with national Societies.

national nature of the IEEE.



B. W. Osborne Candidate for Region 8 Director

conferences and meetings. Considerable value must be placed on the continuous process of the education of engineers throughout their careers. To remain intellectually fresh, an engineer must be prepared to exercise his intelligence and learn new disciplines, rather than stay as a specialist in a particular field. IEEE publications and conferences play an essential part in this education process, and are of great value to the young engineer. The continued interchange of information is vital for future engineering and scientific development.

We need to encourage and assist the formation of new Sections; and of Society Chapters and student branches within the Section areas. The substantial progress made by Region 8 in recent years has been in no small way due to the efforts of the present and past Directors, and if elected, I would endeavour to follow the high standards that they have set.

# PRESIDENTIAL CANDIDATES' STATEMENTS

#### **RICHARD J. GOWEN**



Richard J. Gowen Presidential Candidate

IEEE's Centennial Year provides a unique opportunity to both focus on the historic achievements of the engineers and scientists of our profession and to prepare for our second century of service. As the Vice-President for Professional Activities and a member of the Board of Directors and other major Boards and Committees during the past five years, I have had the privilege of learning about issues of concern to members of the IEEE and possible solutions.

Most members join the IEEE to receive current information about both changes in electrotechnology and the newest techniques of our profession. It is important that the IEEE makes the fullest use of the

technologies we write about in our publications to develop new ways to more timely serve the needs of the over 11,000 members in Region 8 – such as the recent management seminar delivered by satellite and more applications and design papers.

The proposed constitutional amendment to turn back the IEEE to restrict membership to only Americans is out of touch with the needs of the majority of members. I have served the IEEE in 56 positions of leadership and have found that the transnational aspects of the IEEE have strengthened, not weakened, our programmes. This misguided amendment to Americanize the IEEE must be defeated.

I ask for your vote to serve as the 1984 IEEE Centennial President so that I may bring my experiences with IEEE technical, regional and professional activities to help guide the preparation of the IEEE for a second century of service to all members.



D onald D. King Presidential Candidate

#### DONALD D. KING

The numerous and active IEEE members in Europe are proof that science and technology are international in scope. Work for my company (Philips) regularly brings me to Europe. I believe I have acquired through some years of experience, an understanding and appreciation of European engineering and science. I intend to work toward a strengthening of the ties of IEEE with Region 8; I oppose "Americanization" of the IEEE.

Co-operation with National Societies forms the basis for all IEEE activity in Europe. In purely technical fields, there is an almost complete commonality of interest among electrical engineers world wide. We must continue to work together

on joint technical conferences and encourage the free flow of information across national boundaries. An expedited delivery of IEEE publications to European members will contribute to this information flow.

Societal and professional issues are also of growing concern to engineers everywhere. Subjects such as nuclear reactor safety and the effects of automation and microprocessors have a strong public impact. Other topics such as patent policy, professional standards, and registration and licensing of engineers affect primarily the engineers themselves. In all these areas, there is great diversity of opinion and practice, across national boundaries and often within countries. We must encourage the exchange of information among engineers on these subjects, both at conferences and in publications.

The President of the IEEE is elected by all the members. I know the Atlantic is no barrier to co-operation and friendship, and I expect to actively represent the European membership.

# **EXECUTIVE VICE-PRESIDENT CANDIDATES' STATEMENTS**

Allan C. Schell

Executive Vice-President

Candidate for



Charles A. Eldon Candidate for Executive Vice-President

#### CHARLES A. ELDON

I support unequivocally IEEE's transnational status and the Board's opposition to Irwin Feerst's "Americanization" amendment. This amendment would do great mischief, weakening not only IEEE but also the opportunity to develop international standards and to share technical information for the betterment of all mankind.

But IEEE is more than a vehicle for sharing technical information. It is an organization of people, with different backgrounds and different needs. Presuming, sensibly, the continuation of our transnational status, IEEE's Board must be sensitive to the special needs of members in different regions, as well as members in different technical areas.

For example, IEEE must solve the special problem of slow delivery of publications to Regions 8, 9 and 10. It must avoid conflicts with meeting schedules. It must recognise the problems of member relations – responding quickly to correspondence, simplifying the processing of dues payments, improving relations among student groups, etc.

Within IEEE's transnational structure, Region 8 should be supported in its unique needs but encouraged to grow and function independently for the best interests of its members. The same should be said for any other Region. The difference is that Region 8 is the fastest-growing Region of IEEE and the largest outside the US, with numerous technical meetings, international conventions, and publications. As Executive Vice-President, I would be sensitive to the consequences of these special circumstances in Region 8 and would strive to deal with them effectively and promptly.

# ALLAN C. SCHELL

The IEEE performs a vital service to electrical engineering through its outstanding series of transactions, journals and conferences. A major unfinished task is to develop practical methods of reducing delivery times of IEEE publications. As Executive Vice-President I would use my experience in IEEE publications to work for improvements in this area.

The IEEE Regional structure has been the unifying force within the Institute, bringing services to the local level and sustaining Chapter operations. Region 8 has had exceptional growth in both membership and activities. As a former Section chairman I appreciate the effort and initiative needed to accomplish these results. As a student I attended meetings of

one of the European engineering societies, and I believe the IEEE Sections have important roles in the development of co-operative participation with national societies.

On this year's ballot there is a proposed constitutional amendment to restrict IEEE activities to the US. I urge you to vote against this proposal, which would attempt to sever connections of the world-wide technical community. About 30% of Society memberships are from countries other than the US, as are many of the contributions to the transactions. For the IEEE to remain the forum of electrotechnology it must encourage the participation of engineers in a transnational organization.

In summary, I strongly support the activities of the IEEE in its service to the electrical engineering community. As Executive Vice-President I would work to continue the Institute's growth in directions that benefit our membership throughout the world.

# Radar Technology

## DAY AFTER RADAR-82 AND MM '82

Lecturer:	DR. ELI BROOKNER, Consulting Scientist Raytheon Company, Equipment Division. Wayland, Massachusetts 01778 (617) 358-2721 X2366; Telex: 92-3475	
Date:	October 23, 1982 (Saturday), day after <i>Military</i> <i>Microwaves '82</i> and <i>Radar-82</i>	
Time:	8-12 AM, 1-4:30 PM	
Place:	London Tara Hotel (adjacent to <u>Radar-82</u> , 10 min. from MM '82 by bus)	

The course is framed around parts of the new book **Radar Technology** edited by **E. Brookner.** This book (which sells for  $\pounds 28$ ) will be given out free to attendees; Supplementary notes also supplied (Copies of over 700 vugraphs; updated to 1982 state-of-the-art technology).

This lecture is geared to those unfamiliar with as well as those experienced with radar design.



#### COURSE CONTENT:

Fundamentals of radar: phased arrays, Cobra Dane, Pave Paws, Foreign radars; Signal processing: What is pulse compression, SAW, SAW convolvers, CCD, BBD, FFT, all explained in simple

terms, Impact of VHSIC/VLSI, Survey of 28 digital signal processors; components: solid-state (UHF through X-band, discrete and monolithic), tubes, gyrotron, MM Waves; tracking:  $\alpha$  -  $\beta$  and Kalman filters, the mystery taken out of them; synthetic aperture radar (SAR); How to look like a Genius in Detection without really trying.

FEE: £59 IEEE Members, £67 Nonmembers; add £7 for registration after October 8, 1982.

LUNCH AND TEA BREAKS INCLUDED, but not lodging.

For further information contact Mrs. K. Norris, Tel. In England: 0279/26862; overseas: 44/279/26862; Telex: COSSOR G 81228

**RADAR TECHNOLOGY** 

Saturday, Octobe	er 23, 19	982		
REGISTRATION FORM:				
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EEE Member:		Yes 🗌	No 🗖	
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Purchase Order enclosed:				
DETACH AND MAIL TO:				
Mrs. Kathy Norris COSSOR Electronics Ltd. The Pinnacles, Elizabeth Way Harlow, Essex CM19 5BB			<b>D</b>	

# NEWS OF THE SECTIONS

FRANCE SECTION (Chairman: Mr. L. J. Libois)

France Section has based its recent activities on four points:

- Organization of the new elected committee
- Membership development

Student activities development

- Conference organization

**Committee Organization.** After the agreement between "Société des Electroniciens et des Radioélectriciens" (SEE) and IEEE in January '81, the new section committee (elected in April 1981) has begun its activities.

The Section Executive Committee meeting in November '81 was honoured by the presence of Prof. Vander Vorst, President of the Student Activities Committee, who attended the meeting in order to advise on student activities.

New committee chairmen elected were:

Conference Co-ordination......J. G. Herry Fellows and Awards....J. P. Voge Students Activities.....O. Dusanter Membership development, which of course receives priority, is

co-ordinated by the Section Chairman. During the May '82 meeting, the activities of the Section during the year, and the success of the different conferences which had been organized, were analysed.

**Membership Development and Section Life.** One of the main goals of the committee is to develop information among IEEE members. To this end, and to develop membership, a directory "Annuaire 1982, Section Française" was published in April, and a set of promotional materials has been prepared. (Especially for development of student branches but it can be used more generally).

Petitions for the creation of a French chapter of the Acoustics Speech and Signal Processing Society, and also of the Communication Society, were submitted in March '82 and both societies have already agreed.

 A conference on Presentation of EPRI (Electrical Power Research Institute) is planned by the Power Chapter in September.

- The Computer Chapter is being reorganized.

The number of members of the France Section was about 800 on 1

April 1982. The committee hopes that the membership development action will increase this number.

Student Activities. The development of student activities, and of student branches, is one of the priorities of the France Section.

In order to develop these activities, promotional material has been prepared, including:

- a placard: "IEEE, une ouverture sur le monde"

- a membership brochure "Devenez membre del'IEEE."

Several schools have been contacted to develop student branches. For each of these schools (two in Paris, one in Brest, one in Lille, two in Toulouse) we already have a potential counsellor.

Grenoble student branch continues to be very active.

Conference Organization. Two kinds of conferences are organized:

- France Section is co-sponsor with SEE (French Electrical Society) of periodical conferences, at the rate of about thirty conferences a year.
- In addition, international symposia are co-sponsored by the France Section. Three main symposia have been organized during 1982.

May3/5 1982, Paris: International Conference on Acoustics, Speech and Signal Processing (ICASSP '82). It was the first time that this conference was organized outside USA. The opening session was honoured by the presence of Mr. Robert Larson, President of IEEE. The Chairman of the France Section opened the meeting which was attended by about 1600 participants. During this conference, the France Section had a stand where the "Values of Leadership" were presented; promotional materials were distributed and some new members joined the France Section during the conference.

May 25/27 1982, Paris: 12th IEEE International Symposium on Multiple Valued Logic.

June 21/25 1982. Les Arcs (Savoie): International Symposium on Information Theory.

1982 has been for the France Section a year of quite intensive activities, after five years of quiescence.

The committee hopes that all the actions initiated will show results in the following months (increase of members, development of student branches, creation of active chapters) and will do everything possible to have the France Section quite alive during the following years. MIDDLE AND SOUTH ITALY SECTION (Chairman: Prof. Vito Capellini)

Continuing Education. The following courses have been sponsored by the Section:

- IEEE/PES Special Course on "Corona and Field Effects of AC and DC High Voltage Transmission Lines", organized by University of Rome, to be held at Istituto di Elettrotecnica, Faculty of Engineering, Rome (September 20–24, 1982). For further information contact: Prof. M. D'Amore, Istituto di Elettrotecnica, via Eudossiana 18, 00184 Rome, Italy. Tel. (396) 4755051.
- Course on "Modeling and Analysis in Biomedicine", organized by International School of Pure and Applied Biostructure, to be held at 'Ettore Majorana' Centre for Scientific Culture, Erice, Trapani, Sicily (October 17–30, 1982). For further information, contact: Prof. K. A. Fegley, The Moore School of Electrical Engineering D2, University of Pennsylvania, Dept. of Systems Engineering, Philadelphia, PA 19104, U.S.A.

**Membership Development.** The mean percentage increase was about 5% in recent months, that for student membership being about 4%.

**Student Activities.** The Section organized the participation of a delegation of students from the University of Rome at EUROCON 82 in Copenhagen. A paper by M. G. Di Benedetto on "Voiced-Unvoiced-Silence Classification of Sounds in the Speech Signal" was accepted for oral presentation by the International Jury of the 1982 IEEE Region 8 Undergraduate Student Paper Contest.

Conference Activities. The following conferences were sponsored by the Section:

- 29th International Scientific Congress on Electronics. March 23–24 1982. Rome – Palazzo dei Congressi – EUR. The conference, sponsored by the Italian Post-Telecommunication Ministry, Italian Post Office, U. Bordoni Foundation and IEEE Middle and South Italy Section, was devoted to the contribution of electronics and telematic systems in the Postal Services. A seminar on electronics in medical applications for rehabilitation was also held.
- applications for rehabilitation was also held.
  International Workshop on "Time-Varying Image Processing and Moving Object Recognition." May 7 1982. Florence – Palazzo degli Affari. The workshop was devoted to advances in the theory and techniques of time-varying image processing and moving object recognition with applications to communications, radar-sonar systems, moving vehicle tracking, remote sensing, biomedicine, artificial intelligence and robotics.

The IEEE International Symposium on Circuits and Systems was held at the Engineering Faculty of Rome University, May 10–12. The symposium consisted of 26 sessions devoted to contributed papers and 14 special sessions covering the following main areas: active filters, digital filters, graph theory, fault analysis, circuit simulation, switched capacitor circuits, power applications and integrated circuit design. Section members co-operated actively in the organization and programme of the symposium with a very successful result.

#### Section Meetings Programme:

- October 23 1981. Faculty of Engineering, University of Rome.
- "Interazioni tra campi elettromagnetici e cellule: riattivazione cellulare" by Prof. A. Chiabrera, University of Genoa, Italy.
- May 13 1982. Faculty of Engineering, University of Rome.
  "Comparative Study of Millimetre Wave Transmission Lines" by Prof. Tatsuo Itoh, IEEE Fellow, Microwave Laboratory, University of Texas

at Austin, USA. **Committee Meetings and Elections.** Committee meetings were held in Rome on February 19 and May 12 1982, and in May 1982 the procedure was started to elect the new Chairman and Officers of the Section.

#### NORTH ITALY SECTION (Chairman: Mr. M. Sforzini)

Standing Committees of the Section. The following main Standing Committees were set up:

- Membership Development Fellows and Awards Chairman: Prof. G. Carrara.
- Publications, Publicity and Intersociety Relations Chairman: Dr. G. Bonicelli.
- Continuing Education Chairman: Prof. E. Biondi.
- Student Activities Chairman: Prof. F. Saccomanno.
- Professional Activities Chairman: Prof. G. Corbellini.

Meetings of the Section. Meetings of the Executive Committee of the Section were held in Milan on October 7 1981, and on December 21 1981 on the occasion of a welcome visit of Prof. W. Proebster, IEEE Region 8 Director.

The problems of the student activities of the Section were discussed at a meeting in Milan on February 23 1982, on the occasion of a visit of Prof. A. Vander Vorst, when the Chairman and the Secretary of the Section, the Chairman of the Section Student Activities Committee and a few Section Counsellors were present.

**Fellows.** Prof. F. Carassa and Dr. E. Occhini were officially awarded IEEE Fellowship by the Chairman of the Section, Dr. M. Sforzini, on the occasion of an AEI/IEEE lecture on optical fibres by Dr. L. Sansone (Società Cavi Pirelli) held in Milan on April 22 1981.

Membership Development. The overall membership increase in the period October 1981–March 1982 was about 6%, and as much as

20% in terms of the student members. The comparison of the membership in the period March 1981–March 1982 shows a stable situation.

# Lectures and Conferences organized or co-sponsored by the IEEE North Italy Section:

**Lectures.** Between October 1981 and June 1982, five lectures were held at the Turin and Milan Sections of the Italian Electrical and Electronic Association (AEI):

- Electronics for the electrical utilities.
- Basic resources for the electricity.
- Optical fibers.
- Development and perspectives of the electric road vehicles.
- Communication of technology and know-how to the developing Countries in respect of electrotechnics, electronics, telecommunications.

During the same period six lectures were held at the Institute of Automatica of the University of Bologna:

- Heart modelling.
- Partial construction of formal power-series: new results and applications.
- Multistructural models of linear dynamic systems: properties and applications; the use of identification techniques in mineral engineering.
- Modelling of the arterial system.
- Automated galvanization in the production of printed circuit.
- The lumped parameter model and the control of large flexible systems.

**International Conferences.** In the period October 1981–June 1982 three international conferences have been organized in North Italy, sponsored by the IEEE North Italy Section and other organizations:

- International Symposium on Energy Cables.
- International Symposium on Circuit and Systems.
- Quality of the electric supply for automation, instrumentation and data processing systems.

**Future Activities.** An IEEE/PES special course on corona and field effects of AC and DC high-voltage transmission lines will be held in Rome on 20–24 September 1982. This course is sponsored by IEEE/PES Corona and Field Effects Sub-Committee, CIGRE Working Group 36.01, IEEE North Italy and Middle & South Italy Sections.

An International Symposium on Fault-Tolerant Computing (FTCS-13), sponsored by IEEE Computer Society, will be held in Milan on June 28–30 1983. The IEEE North Italy Section will give support to the organization of the symposium.

In addition, lectures on corona from UHV power plants, lightning phenomena, design and optimization on transmission lines, methods for planning of electric networks, are planned at the Milan Section of AEI.

**Melecon 83.** Information on the conference has been given to the members of the Section, and action has been taken with a view to acquiring useful contributions.

#### POLAND SECTION (Chairman: Prof. Dr. Andrzej J. Sowinski)

The Poland Section of IEEE was officially established on December 1 1972 by ten Electrical and Electronics Engineers who were already members of the Institute, and nineteen new IEEE members.

The formation of the Section was preceded by lengthy organization by Mr. Janusz Czarmarski, General Manager of the Federation of Polish Scientific-Technical Association (Naczelna Organizacja Techniczna -NOT), who left the Section under the protection of the Association of Polish Electrical Engineers (Stowarzyszenie Elektryków Polskich – SEP). During 1973, the IEEE President Dr. Harold Chestnut, and Mr. C. Reginald Russell (then Director of IEEE Region 8) visited Poland Section, acquainted our members with the organizational structure of the Institute, and discussed with Mr. T. Dryzek, SEP President, the formal agreement between the IEEE and SEP. The first (two-year) agreement, allowing our Section to operate in Poland, was signed by both Presidents in New York on December 5 1973. (The present three-year agreement was signed by Mr. T. Dryzek, SEP President, and IEEE President J. J. Suran at the end of 1979; its validity expires on December 31 1982). Other Regional Directors visited Poland Section (Dr. Hinton in 1973, Prof. Stumpers in 1975 and Prof. Bolinder in 1978) giving lectures and providing valuable advice on organizational problems.

The following persons were elected to the first Poland Section Executive committee. Chairman: Prof. Dr. Adam K. Smolinski (F), Vice-Chairman: Doc. Dr. Stanislaw Grzybowski (SM) and Secretary/ Treasurer: Doc. Dr. Zbigniew Czyz (SM). The Section BY-LAWS, worked out by the Executive Committee and approved by IEEE in 1973, provided for a term of two years for Executive Committee members, starting and ending in June. The following have served as Chairmen of the Poland Section: Prof. A. K. Smolinski (1973–1975, 1975–1977; 1977–1979) and Prof. A. J. Sowinski (1979–1981, 1981–1983).

During the first years of its activity, the Poland Section co-operated closely with the Canadian Region of IEEE. Canadian Days in Poland, and Polish in Canada, were organized in the years 1975 and 1977 respectively. Poland Section delegations went to the USA during INTERCONs, in the years 1973, 1974, 1975 and 1976.

During its nine and a half years activity, the Poland Section has organized seventy professional meetings and co-operated in organization of ten conferences. Among others there were six international conferences: The Third, Fourth and Fifth International Wroclaw Symposium on Electromagnetic Compatibility in 1975, 1978 and 1980 respectively; Canadian Days in 1975; European Conference on Circuit Theory and Design – ECCTD '80; and Tenth European Microwave Conference in 1980. Polish delegations were present at Eurocon Conferences in 1974, 1977 and 1980.

In March 1982 the Poland Section had 52 members. Among them: two Fellows (one LF) and 38 Senior Members (one LS).

The Poland Section Executive Committee (until June 1983) consists of: Chairman: Prof. Andrzej J. Sowinski; Vice-Chairman: Prof. Wieslaw Seruga; Past Chairman: Prof. Adam K. Smolinski; Secretary/Treasurer: Doc. Dr. Zbigniew H. Czyz.

Committee Chairmen:

Publications and Publicity-Prof. Andrzej Filipkowski. Professional and Educational Activities-Doc. Dr. Jan Nasilowski. Membership and Transfer-Prof. W. Seruga. Nominations-Prof. A. K. Smolinski.

UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION (Chairman: Mr. W. B. Osborne)

This is the first annual article on the activities of the United Kingdom and Republic of Ireland Section.

Membership Growth. First formed in 1961 with Prof. R. C. G. Williams as founder Chairman, the UKRI Section is the largest Section in Region 8, having a total of about 1900 members of all grades. Steady membership growth has been maintained, at about 8% per annum in recent years, and we should meet our self-imposed target of over 2000 members by the time of the IEEE Centenary year 1984. In that year the Eurocon conference is to be held at Brighton; and other events to celebrate the IEEE Centenary are planned, in which the UKRI Section will plav its part.

Section Meetings. During the last year we have had two Section meetings, with lectures on "Cable television and interactive services" by Mr. E, J. Gargini on 28th October 1981; and on "Radar Oceano-graphy" by Prof. E. D. R. Shearman on 9th March 1982.

Chapter Meetings. The Society Chapters on Control Systems (CS Chairman Prof. M. J. Grimble) and Circuits and Systems (CAS Chairman Dr. J. I. Sewell) have each staged several meetings; and the PC Chapter (Chairman Mr. B. R. Harrington) arranged an afternoon symposium on the presentation of technical and scientific papers, in London on 25th November 1981.

For forthcoming meetings, see the details on the insert sheet to UKRI members.

Prof. L. R. B. Elton has taken over the Chairmanship of the Education Chapter, and a meeting is planned for March 1983, after the AGM.

**Control Systems Conference.** By the time this Newsletter is published, the CS Chapter Conference on "Multivariable and Adaptive Control Systems Theory and Applications" will have been held on 19th/21st July at the University of Hull.

**Growth of Chapter Activities.** Those interested in taking an active part in the work of any of the Society Chapters, or in giving a talk, should contact the Chapter Chairman concerned.

The formation of new Chapters, if desired by an adequate number of members of the Society concerned, should be brought to the notice of the Section Chairman or Secretary; or could be put forward for discussion at the Annual General Meeting in March of each year. Any active Chapter should hold at least two meetings each year.

**Conference Representatives.** The Section is co-sponsor of several conferences, with a representative on each organizing committee. Members interested in taking part in this work should provide the Section's Conference Co-ordinator, Prof. A. C. Davies (City University, tel: 01-253-4399) with information as to their interests and qualifications.

Visit by IEEE President. The IEEE President for 1982, Dr. Robert E. Larson was present, with the Region 8 Director Prof. Dr. Ing. Walter E. Proebster, at a meeting with the Section officers, held at the Heathrow Penta hotel on 27th April 1982.

**IEEE Stand at IBC '82.** Those attending the International Broadcasting Convention at Brighton on 18th/21st September 1982 will be able to visit the IEEE sponsor's stand in Hall 6, opposite the registration area. This stand, which is to be manned part-time by volunteers, will display IEEE publications and membership development material.

Fellows and Awards. Dr. Cyril Hilsum was presented with the 1981 Sarnoff Award in Washington, D.C.

Prof. A. G. J. Macfarlane, Prof. E. D. R. Shearman and Dr. E. P. Wohlfarth have been elected to Fellow.

**Students** The Students Branch of the Section is flourishing, under the guidance of Prof. P. G. Farrell of Manchester University. It is hoped shortly to establish a Students Branch in the Republic of Ireland, with Dr. J. Christie of the University College of Dublin as student counsellor.

UKRI Section Executive Committee (1982).

Chairman: Mr. B. W. Osborne; Secretary: Dr. G. H. Byford; Treasurer: Dr. L. Mogridge.

Five members are elected or re-elected each year.

Those elected for 1982/83 were Prof. D. P. Atherton, Prof. P. G. Farrell, Mr. B. R. Harrington, Dr. E. H. Mamdami, and Prof. E. D. R. Shearman; and for 1981/82 were Mr. C. S. den Brinker, Mr. J. F. Byrne, Prof. A. C. Davies, Prof. C. W. Turner and Mr. R. C. Winton.

All Chapter Chairmen are ex-officio members of the committee:

For ED: Prof L. R. B. Elton. For CS: Prof. M. J. Grimble. For PC: Mr. B. R. Harrington. For CAS: Dr. J. I. Sewell.

# MELECON SUCCESS STORY

# (MELECON '83 TO BE HELD IN ATHENS, GREECE, 24-26 MAY, 1983)

Preparations for Melecon '83 are in full progress. The first Melecon (Melecon '81) was held in Tel-Aviv and was a great success. 1200 participants attended and the financial surplus will be used for the prefunding of Melecon '83 which is to be held in the Athens Hilton May 24–26th.

All major topics in electronics, computing and power engineering will be covered with special emphasis on solar energy and wind power research and applications.

The conference will be supplemented with visits to archaeological sites on the mainland and the islands and social gatherings which will provide the opportunity for scientific discussion as well as a chance to get acquainted with Greek culture both past and present.

Prospective authors are invited to submit titles and 200-word summaries for consideration for presentation. The Technical Programme Committee will select the final programme. The official language is English. Participation in the programme is conditional on receipt of the photo-ready paper by 30 January 1983. The schedule for the authors is: – Authors should submit 3 copies of a 200-word

summary along with author's name, address,

- affiliation, telephone and telex numbers 30 September 1982
- Notification of acceptanceSubmission of photo-ready paper
- 30 November 1982 – 30 January 1983

For all information, registration forms, submission of summaries and papers, please write to:

MELECON '83 Secretariat c/o Prof. E. N. Protonotarios National Technical University 42 October 28 Street Athens (147) Greece.



Prof. Dr. Walter Proebster (Director of Region 8) looks on with pleasure while Dr. Baal-Schem (Conference Co-ordinator) left hands over a cheque for the Melecon '83 surplus to Dr. Herbert May (Treasurer) centre.

# For Your Professional Library:

# Computer Hardware Description Languages and Their Applications

Proceedings of the IFIP TC-10 Fifth International Conference on Computer Hardware Description Languages on Their Applications, Kaiserslautern, F.R.G., 8-9 September, 1981

edited by M. BREUER and R. HARTENSTEIN

1982. about 250 pages. ISBN 0-444-86279-X Price: US \$39.50/Dfl. 85.00

The papers published in this work are testimony to the fact that the study of Computer Hardware Description Languages is entering a new era of maturity. Though a significant number of submitted papers deal with traditional subjects, such as describing new CHDLs, many papers are concerned with formal aspects of CHDLs and new application areas. Some of these topics cover in depth analysis of some attributes of CHDLs, such as formal definitions of syntax and semantics and the impact of these properties on verification, as well as formal studies on behavior and structures.

The work also covers symbolic and graphic languages, their specification, implementation and application. It deals further with CHDL-based design tools, such as for analysis, synthesis, simulation, verification and evaluation. Both non-procedural languages as well as algorithmic languages, such as microprogramming, are covered. In addition to the submitted papers from over 16 countries, the program featured the invited surveys and/or tutorials presented by several outstanding researchers.

# Implementing Functions: Microprocessors and Firmware

Proceedings of the Seventh EUROMICRO Symposium on Microprocessing and Microprogramming, Paris, 8-10 September, 1981

#### edited by LUTZ RICHTER, PIERRE LE BEUX, GERHARD CHROUST and GÉRARD NOGUEZ

1982. xvi + about 518 pages. ISBN 0-444-86282-X Price: US \$74.50/Dfl. 175.00

The EUROMICRO Symposium is the major annual European forum for presentations and discussions on new research and developments in the field.

This work concentrates on the distribution of functions. In twenty sessions, 47 full-length papers were presented attempting numerous views of locating, designing and realizing functions and tools to support them. Many up-to-date research topics have been selected to attract the participants. The topics covered were related to systems architecture of various types of structures and applications, to interfacing and communications, to programming techniques, to diagnosis and fault tolerance considerations and to several aspects of microprogramming and firmware. It is therefore certain to constitute a valuable source of reference for research.

# FREE

North-Holland Catalogue on Publications in the Field of Computer, Information and Communication Science & Technology.

This Catalogue describes over 140 Books and 20 Journals covering the following subject areas: distributed systems, information systems, computer performance, software design & development, graphics, VLSI, simulation, artificial intelligence, library & information sciences, etc.

# **Circuit Theory and Design**

Proceedings of the 1981 European Conference on Circuit Theory and Design, The Hague, The Netherlands, 25-28 August, 1981

edited by R. BOITE and P. DEWILDE

1981. xxii + 1090 pages. ISBN 0-444-86307-9 Price: US \$111.50/Dfl. 240.00

Circuit Theory has now come of age. By this we mean that a methodology and discipline is available in the field, which allows engineers to tackle a variety of new and difficult problems without being forced to resort to an essentially different methodology. Mentioned in this book are: computer aided design of VLSI circuits, switched capacitor filter design, digital filter design. A sort of confluence between classical network theory, classical numerical mathematics and classical system theory seems to have taken place allowing us to tackle ambitious problems e.g. in signal processing. A similar confluence between computer sciences and network analysis methods in the offing.

# **Eurographics '81**

Proceedings of the International Conference and Exhibition, Technische Hochschule Darmstadt, F.R.G., 9-11 September, 1981

### edited by JOSE L. ENCARNAÇAO

1982. xii + 336 pages. ISBN 0-444-86284-6 Price: US \$46.50/Dfl. 100.00

This book covers a broad range of contributions and indicates the extent of the computer graphics impact within the European community. The papers presented give a good and representative overview of the R & D activities, as well as application of Computer Graphics in Europe. The main feaures of this work include: Computer Graphics, Applications of Interactive Graphics System, Graphics Devices. Two examples of articles under the heading Graphics Systems are "A Hardware approach to the Core system of ACM/SIGGRAPH" and "A GKS implementation for meteorogical applications."

This publication should be of interest to computer scientists, engineers, designers, architects in design industries as well as engineers in the automation organisations.

# Performance '81

Proceedings of the 8th International Symposium on Computer Performance Modelling, Measurement and Evaluation, Amsterdam, 4-6 November, 1981

edited by F. J. KYLSTRA

1981. xii + 545 pages. ISBN 0-444-86330-3 Price: US \$69.75/Dfl. 150.00

The papers published in this volume touch upon many of the currently important themes in the theory and practice of computer performance analysis. New developments in queueing theory, relevant to performance analysis, extend the class of problems amenable to analytic treatment. For the solution of queueing network models, new approximation and computation methods are presented. Workload characterization and the analysis of program behavior receive due attention. The performance of secondary storage systems, and the analysis of distributed systems are treated in several papers. The book can therefore be considered a valuable addition to the current available literature, and a dependable description of the state-of-the-art.

# **North-Holland Publishing Company:** P.O. Box 211, 1000 AE Amsterdam, The Netherlands In the USA/CANADA: Elsevier Science Publishing Co., Inc., 52 Vanderbilt Ave., New York, N.Y. 10017, U.S.A.

#### Student Paper Contests 1982

The 1982 Reg 8 Undergraduate Student Paper Contest was held on June 18, within the frame of EUROCON '82. Ten papers were entered for the regional contest. The jury, international as usual, was composed of Prof. M. Blanke (Technical University of Denmark, Lyngby), Prof. F. Bolinder (Chalmers Institute of Technology, Göteborg, Sweden), Prof. G. Brunn (Technical University of Denmark, Lyngby), Mr. D. C. J. Poortvliet (Institute of Applied Physical Research, The Hague, The Netherlands) and Prof. K. Richter (Technical University of Graz, Austria). The jury elected five papers for oral presentation. The invited contestants had their trip expenses paid from the Reg 8 Student Activities budget.

The first prize (\$300 from the IEEE Life Member Fund and an extra allocation from Reg 8 to organize a visit to the United States or to Canada) was won by the paper "Cross-Compiler for Pocket Calculator" presented by Messrs. M. J. Geldmacher and R. E. Schoepflin (Zurich Institute of Technology, Switzerland). Two papers are sharing the second prize: "Voiced-Unvoiced-Silence Classification of sounds in the Speech Signal" by Miss M. G. Dr. Benedetto (University of Rome, Italy) and "Absorption Co-efficient at  $CO^2$  –

Laser Wavelengths for Toluene, m-Xylene, o-Xylene, and p-Xylene", by M. P. Anderson (Chalmers Institute of Technology, Göteborg, Sweden).

On the other hand, the 1982 Postgraduate Student Paper Prize (\$300 from the Reg 8 Student Activities Committee budget) was granted by the same jury to the paper "An Efficient Single Output Fuzzi Control Algorithm for Adaptive Applications" by Messrs. T. R. Anderson and S. B. Nielson (Technical University of Denmark, Lyngby).

It may be wise to already take note of two announcements.

The next Undergraduate Student Paper Contest will be held within the frame of MELECON '83, Athens, Greece – May 24–26, 1983; The deadline will be around January 15th, 1983.

Furthermore, at that same conference, MELECON '83, a Young Engineer Prize (\$300) will be awarded to the best paper presented by a young engineer less than thirty years of age with no co-author older than this limit.

Professor A. Vander Vorst.

Chairman, Student Activities Committee

# REMEMBER

# USE YOUR VOTE IN ALL IEEE ELECTIONS AND BALLOTS

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# PROMOTING CONFERENCES, COURSES, EXHIBITIONS, BOOKS and PUBLICATIONS

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# FOR YOUR SPECIAL ATTENTION SUPPLEMENT TO IEEE NEWSLETTER No. 59, AUGUST 1982 FORTHCOMING MEETINGS IN REGION 8

#### **Conference on Electron Tubes**

Section 4 of the Nachrichtentechnische Gesellschaft within VDE (NTG) is organising, in co-operation with the German Section of IEEE, a conference on the above subject in Garmisch-Partenkirchen (Bavaria, West Germany) from 18 to 20 May 1983

It is proposed to consider the following items: Grid tubes; Transit time tubes (Klystron, TWT etc.); Microwave tubes; Satellite tubes; Pulsed tubes; Extended interaction principle; Röntgen-ray tubes and Röntgen image converters; Image tubes (including flat-picture tubes); Vacuum switching tubes; Hybrid tubes (EBS etc.); Modern new tube concepts (gyrotrons etc.); Particle accelerators; Technology of vacuum electronics; Cathode technique; Electron microscopes (Litografic etc.); Electron optics; Energy converters; Gas laser; Gas discharge tubes; and Reliability and long-life behaviour of vacuum electronic components.

The duration of presentations should not exceed a maximum of 20 minutes. The conference language is German and English. Submission of provisional versions (a one-to-two page draft summary) of papers are requested to the Conference Chairman: Dr. rer. nat. H. Heynisch, Siemens AG, Werk für Röhren und Sondergebiete, St. Martinstrasse 76, D-8000 München 80, Germany.

The Conference Proceedings are part of the series "NTG-Fachberichte" which is published by the VDE-VERLAG Berlin.

#### Tenth International Symposium on Computer Architecture

The symposium is sponsored by: IEEE, ACM, EUROMICRO and National Swedish Board for Technical Development. It will be held June 13-16 1983 in Stockholm, Sweden. Papers are solicited on any aspects of Computer Architecture. Topic areas include, but are not limited to, the following: Architectural aspects of numeric and symbolic computation; Architectures for knowledge based systems; Data and demand driven architectures; Educational and descriptive aspects of computer architecture; Impact of advances in microelectronics and optics; Object oriented architectures; Principles for interconnection; Tools and methods for architecture description and synthesis; Vertical function distribution; Distributed and parallel architectures; and High Level language architectures.

Submitted papers will be accepted for evaluation until October 15 1982. Five copies of the manuscript (in English, not exceeding 20 double-spaced pages) should be sent to the co-program chairman: Prof. Lars-Erik Thorelli, Royal Inst. of Technology/Computer Systems, S-100 44 Stockholm, Sweden.

#### **1983 NASECODE III**

The Third International Conference on the numerical Analysis of Semiconductor Devices and Integrated Circuits will be held on 15 to 17 June 1983 in Galway, Ireland, under the auspices of the Numerical Analysis Group and co-sponsored by the Electron Devices Society of the IEEE, Institute for numerical Computation and Analysis, and Irish Mathematical Society.

Contributed papers are solicited from engineers, physicists and mathematicians on any topic relevant to the numerical analysis, modelling and optimization of electronic, opto-electronic and quantum electronic semiconductor devices and integrated circuits. A special feature of the conference will be a number of public debates led by distinguished personalities holding different views on key technical issues. An International Steering Committee is drawn from 12 countries.

The deadline for the receipt of abstracts and preliminary versions of 20-minute contributed papers is 18 February 1983. Only papers presented in person by the author at the conference and prepared as instructed can be published in the Proceedings.

A Short Course of relevance to the Conference will be held in association with NASECODE III on 13 and 14 June 1983.

All correspondence concerning the Conference and/or Short Course should be addressed to: NASECODE Conference, 39 Trinity College, Dublin 2, Ireland.

Telephone: +353-1-772941 ext. 1889/1949; Telex: 25442 or 31166 / TCD FI

Telegrams: TRINITY DUBLIN.

#### 17th Carnahan Conference on Security Technology

On October 4-6 1983, this international conference on the science and technology aspects of security systems will be held for the first time in Switzerland. Organized by the Institute for Communication Technology at the Eidg. Technische Hochschule Zurich (ETH) in conjunction with the Office of Continuing Education, College of Engineering of the University of Kentucky (USA), the conference will, as in previous years, direct its emphasis towards the research and development aspects of security, crime prevention and law enforcement.

Technical papers are solicited which describe recent developments in the following areas: sensor technology and detection; alarm devices, searching aids and systems; command, control and communication systems; computer system security and privacy; communication security and privacy including advanced modulation techniques, spectrum management and encryption; automatic identification and authentication of voice, handwriting, fingerprints and other signatures; entry control systems; applications such as automatic vehicle monitoring and nuclear facility security; scientific approaches to risk estimation and management.

The call for papers has a deadline of November 1 1982 for submission of the abstract. Application forms and further information are available from P de Bruyne at the Institute for Communication Technology ETHZ-KT, CH-8092 Zurich, Switzerland. Telephone: (01) 256 2792.

#### International Conference on Fault-Tolerant Computing

This thirteenth annual international symposium sponsored by the Technical Committee of Fault-Tolerant Computing of the IEEE Computer Society is in Milano, Italy, June 28-30 1983.

Papers are solicited on any subject in the general area of fault-tolerant computing including, but not exclusively limited to:

Fault-Tolerant/Reliable

Architecture-Distributed Systems/Multiprocessors Software-Programs/Data Structures/Systems Communications/Networks/Synchronization Existing Systems/Applications Fault Tolerance/Reliability

Theory/Validation

Design Technology/VLSI Ramifications

Modelling and Evaluation/Performance Considerations

Coding, Error Detection, Recovery

Testing, Diagnosis, Fault Modelling

Four copies of an abstract (200 words maximum) should be sent no later than October 1 1982 to the Programme Chairman: Luca Simoncini, IEI-CNR, Via Santa Maria 46, 56100 Pisa, Italy; Telephone: +39 50 500159; Telex: 500371 CNUCE I.

Four copies of a complete paper of maximum length of 4000 words should be sent to the Programme Chairman to be received no later than November 5 1982.

The symposium is sponsored by the Technical Committee on Fault Tolerant Computing of the IEEE Computer Society, in co-operation with the National Computer Science Programme of the Italian National Council of Research, the IFIP Working Group 10.4 on Reliable Computing and Fault Tolerance, the IEI CNR, the AEI SIG Microelectronics, the Politecnico of Milano, and Telettra S.p.A.

#### First International Conference on Conduction and Breakdown in Solid Dielectrics

The conference will take place in Toulouse, France, from Monday, July 4, to Friday, July 8 1983, under sponsorship of the Electrical Insulation Society, IEEE. The main conference site will be at the Paul Sabatier University

This conference provides an inter-disciplinary forum for the exchange of ideas and information on solid dielectrics. It addresses itself to material scientists, physicists, chemists and electrical engineers who are engaged in fundamental and applied work in solid dielectrics.

Topics to be considered by the Conference Organizing Committee include:

Properties of charge carriers

Intrinsic and extrinsically stimulated conductivity

Pre-breakdown and breakdown phenomena

Chemical degradation caused by electrical discharges

Interface phenomena

New dielectric materials - bipolymers Measurements and instrumentation.

If you and/or your colleagues are interested in this conference, please get in touch with Dr. C. Mayoux, Chairman of the ICSD, promptly to permit the mailing list to be kept up to date.

Deadline for abstracts (250 words)	November 30 1982
Notification of authors	January 15 1983
Deadline for manuscripts	April 1 1983

All accepted manuscripts will be published in the "Proceedings of the First Conference on Conduction and Breakdown in Solid Dielectrics." This book will be made available to all participants at the time of the conference and subsequently it will be sold through the IEEE Service Centre, Piscataway, New Jersey, USA.

Further information from: Dr. C. Mayoux, Chairman of the ICSD, Laboratoire de Génie Electrique, Université Paul Sabatier, 118, route de Narbonne, 31062 Toulouse Cédex, France.

#### Radar Technology Course

The Boston IEEE/AESS is putting on their well-received one-day intensive Radar Technology course in London. The time, place and course content are briefly outlined below.

Date: October 23, 1982 (Saturday, Day after Military Microwaves '82 and Radar-82).

Time: 8.00 a.m. to 4.30 p.m.

Place: London Tara Hotel (adjacent to Radar-82, 10 min. by bus from MM'82).

**Course Content:** Fundamentals of Radar: Phased Arrays, Cobra Dane, Pave Paws, Foreign Radars, Very Low Sidelobe Antennas, METTRA; Signal Processing: SAW, Acoustoelectronic and Monolithic SAW convolvers, CTD, CCD, BBD, FFT, and pulse compression explained in simple terms; impact of VHSIC/VLSI on radar signal processors of the future (1985 and beyond); survey of 28 existing and developmental signal processors (represented are Raytheon, Hughes, Westinghouse, GE, TI, RCA, NEC, IBM, TRW, Lockheed and Lincoln Laboratory); Microcomputers (uC), Memories, Josephson-Junction, Logic; Solid State: Bipolar and Monolithic modules and radars; Tubes: Differences, Life, Cathodes (CPC, TFFEC), Efficiency, MM; Synthetic Aperture Radar: strip and spotlight; Tracking, Prediction and Smoothing: a–ß, Kalman and Weiner filters in very simple terms, with emphasis on physical understanding; Detection: Simple cookbook procedure presented.

**Cost**: £59 (IEEE Members), £67 (Nonmembers); Add £7 for late fee after October 8, 1982; Fee includes course text, Radar Technology (£28 list price), supplemental notes (containing copies of over 700 vugraphs), lunch, and tea breaks.

Mail registration to Boston IEEE/AESS, c/o Mrs. Kathy Norris, Cossor Electronics Ltd., The Pinnacles, Elizabeth Way, Harlow, Essex CM19 5BB. Give name, organization, title, business address and telephone number. For further details on course, contact Mrs. Kathy Norris, Phone 0279/26862 (in England), 44/279/26862 (from overseas), Telex COSSOR G 81228, or Dr. Eli Brookner (Boston IEEE/AESS Chairman), Phone 617-358-2721, Ext. 2366 (Raytheon Company), Telex 92-3475. See ad. in this issue.

# 1983 Journées d'électronique of EPFL: Testing Complex Integrated Circuits: A Challenge?

The "Journées d'électronique of EPFL" is an annual international symposium held at the Swiss Federal Institute of Technology (Ecole Polytechnique Fédérale) in Lausanne and co-sponsored by the IEEE Region 8, the IEEE Switzerland Section, the Swiss Electrical Association (ASE/SEV) and the Electronics Association of West-Switzerland (GESO).

The aim of this symposium is to review the current status, discuss the future trends and present innovative ideas or results on a topical subject related to the electronic field. Official languages are French and English, with simultaneous translation provided.

The 1983 edition, to be held from October 11 to 13, 1983, will be devoted to the theme: **Testing complex integrated circuits: a challenge?** It is intended as a forum for professional partners such as designers and manufacturers of IC circuits and test equipments, industrial application, test and maintenance engineers, electronic teachers and research scientists.

Testing complex circuits induces technical, methodological, economical, educational, legal and standardization problems. They will be reviewed primarily in a first **tutorial day**. More **specialized papers** will then describe practical experiences or proposed solutions applicable to specific situations.

Authors of original tutorial or specialized papers on these subjects are invited to submit a proposal based on a full text or a fairly detailed summary, respectively, **before March 15, 1983**, to: Scientific Committee, Journées d'électronique EPFL, Chemin de Bellerive 16, CH – 1007 Lausanne, Switzerland.

Further information and a more detailed Call-for-Papers can be obtained from the above mentioned address.

# COMMISSION F 1983 SYMPOSIUM

# CALL FOR PAPERS

# WAVE PROPAGATION AND REMOTE SENSING

Wépion-Namur (Belgium)

9–15 June 1983

# PURPOSE OF THE SYMPOSIUM

The aim of the symposium is to provide an opportunity for interaction among the propagation and remote sensing scientific communities. It is also intended to bring some new topics and subjects of research to the attention of the propagation scientists. In papers on remote sensing, the focus will be set on the propagation aspects of electromagnetic waves and on the interaction of waves with the medium. Tutorial papers will emphasize fundamental concepts and the state-of-the-art of some important related topics.

The contributed papers content should correspond to the main objectives of the symposium. Suggested topics include: atmospheric attenuation and cross-polarization, incoherent scattering and its effect on propagation and remote sensing (radiometers, radars, looking up or downwards), atmospheric effects at mm and sub-mm wavelengths (including water vapor attenuation and refractivity) and all clear-air effects, inversion techniques in remote sensing (taking propagation effects into account), remote sensing of subsurface objects.

### **INFORMATION FOR AUTHORS**

Prospective authors are invited to submit, before November 1, 1982, five copies of a proposal based on a 200–500 words summary, where the original contribution of the paper is clearly stated. The conference languages are English and French; no simultaneous translation will be provided.

All correspondence, request for information and material should be sent to the Symposium Secretariat: URSI COMMISSION F. 1983 SYMPOSIUM LABORATOIRE DE TELECOMMUNICATIONS U.C.L. Bâtiment Maxwell B – 1348 LOUVAIN-LA-NEUVE, BELGIQUE Tel. (0)10/41.81.81 – Telex : 59.315