

# IEEE Region 8 newsletter



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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
INCORPORATED

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No. 56 NOVEMBER 1981



## EUROCON '82 COPENHAGEN

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Asst. Prof. Jørgen Møltøft  
Chairman Eurocon '82  
Technical Programme Committee

More than 250 papers have now been offered for EUROCON '82, and the number of requests the Conference Office has received indicates that the estimated number of 800 participants is rather too low than too high.

EUROCON '82 will be held in Copenhagen at the Technical University of Denmark, on June 14-18th 1982, with the title "Reliability in Electrical and Electronic Components and Systems". The conference is arranged jointly by IEEE Region 8 and EUREL (The Convention of National Societies of Electrical Engineers of Western Europe), and it is sponsored by those two bodies together with the Danish organizations DIF (Danish Society of Chemical, Civil, Electrical and Mechanical Engineers), I-S (The Society of Engineers of Denmark) and EF (Danish Electrotechnical Association).

The opening ceremony will be performed by His Royal Highness, Prince Henrik of Denmark. On the opening day there will be 3 keynote addresses; on each of the following three days there will be two more specifically oriented plenum lessons; and in the technical sessions there will be room for about ten invited speakers. This is the present plan which of course will be finally confirmed when the technical programme is published.

### Outline of Technical Programme.

Because of the large number of high quality papers offered to the conference, the Technical Programme Committee has got a big – but not unpleasant – job in restructuring the technical programme to accommodate 25% more papers than originally planned.

At present there seems to be six "main streams" in the technical programme:

Reliability Theory and Modelling (15% of the papers); Reliability Testing and Data Analysis (10%); Reliability and Management (15%); Reliability of Electric Power Systems and Components (25%); Reliability of Electrical and Electronic Systems (25%); Reliability of Components for Electrical and Electronic Systems (10%).

The majority of the papers are user-oriented, although they of course contain a certain amount of reliability theory, and many of the papers deal with man's influence on reliability and safety. This means that the conference is useful not only for reliability experts and electrical and electronic design engineers, but also for marketing experts and those concerned with research and development, manufacturing and applications of electrical and electronic systems.

### Exhibition

An important feature of the conference will be the associated technical exhibition which will be housed in the building where the keynote and plenum addresses are presented. The fact that the conference is not only addressing reliability experts but all users and manufacturers of electrical and electronic components and systems seems to indicate that a broad range of firms should be interested in participating in the exhibition. This is confirmed by the requests and reservations which have already been received by the Exhibition Committee.

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

### Further Information.

Further information on all aspects of EUROCON '82 – the Technical Programme, the Tutorial Programme, the Technical Exhibition and the Social Programme – is available from Mrs. Aase Sonne at the Conference Office, DIEU (Danish Engineers Post Graduate Institute), The Technical University of Denmark, Building 208, DK-2800 Lyngby, Denmark – telephone 45-(0) 2 882300. (telex: 37 529 DTHDIA DK).

## REGION 8 NEWS

### Delays in the Delivery of "Spectrum"

The Region 8 Committee is aware that many members experience long delays in the delivery of "Spectrum", and is trying once again to find a solution. Dr. Roger Wellinger, Port-Roulant 50, CH-2003 Neuchâtel, Switzerland, has agreed to make an investigation, but he cannot commence without information on when "Spectrum" is now arriving in the various countries of Region 8. Members are therefore asked to write to Dr. Wellinger informing him of the dates on which their copies of

"Spectrum" arrive, and whether "Spectrum" has been sent to them by ordinary mail or by air mail.

Please assist Dr. Wellinger to assist you by sending him this information for the December, January, and February issues of "Spectrum".

Dr. Roger Wellinger  
Port-Roulant 50  
CH-2003 Neuchâtel, Switzerland.

## LETTER TO THE EDITOR

Dear Sir,

Referring to your August 1981 issue of your Region 8 Newsletter, we feel obliged to draw attention to an appropriate correction concerning the origin of the word electron.

Surely Mr. R. C. Winton has misunderstood the Israeli President's point and in his Report on Melecon 81 claims that "electron" is originally derived from the Hebrew.

In actual fact electron, or ἤλεκτρον in Greek is encountered in Homer and other early greek poems with the meaning of amber or alternatively an alloy of gold and silver. The root is purely greek as can be verified by

consulting any serious dictionary (i.e. Webster's New Collegiate Dictionary 1977).

We would appreciate if after careful consideration of our points you could accordingly inform your readers.

Sincerely yours,  
C. Papageorgiou, F. Afrati, G. Stasinopoulos, E. Sykas,  
School of Electrical Engineering,  
National Technical University of Athens.  
1st October 1981.

**Note from the Editor:** Other letters have made the same point.



## REPORT FROM THE REGIONAL DIRECTOR



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

I realise that many members in Region 8 encounter long delays in receiving IEEE publications, especially in some Mediterranean countries, in Africa, and in the Middle East. The Region 8 Committee has investigated this problem in the past and is now doing so again. We are considering various ways in which these delays might be reduced, and I shall do my best to see what can be done. (See also item in Region 8 News).

With this issue you will find a sample insert entitled 'Electrical & Electronics Engineers Calendar of Conferences and Exhibitions in Europe, the Middle East and Africa', containing information about events which are sponsored or co-

sponsored by IEEE.

I would like to see the Calendar developed to include conferences and exhibitions which are neither sponsored nor co-sponsored by IEEE and to be regularly up-dated, as I believe this would be of great value to all in our Region. I shall be discussing various aspects of a development along these lines – not least how it could be financed.

In order to provide the best services for members which our revenue

can provide, the Region 8 Committee has commenced a programme of long-range planning for our key activities of student activities, conferences, membership development, the Newsletter, and continuing education. In future, the Committee will once a year review a three-year forward plan, which will balance the activities proposed by the responsible Committee members against the available Region 8 revenue. I feel sure that this forward planning will provide a better balance in our Regional member services, and enable our resources to be used in the best way possible.

Out of the fourteen available IEEE Awards, no fewer than three have been won by members in Region 8, an outstanding achievement. On behalf of all members, I offer my congratulations to the following winners, who will receive their Awards at the Opening Ceremony of EUROCON '82.

Prof. Dov Frohman-Bentchkowsky, who receives the Jack A. Morton Award "for contributions to non-volatile semiconductor memories".

Prof. Dr. Werner J. Kleen, who receives the Frederik Philips Award "for technical and managerial roles in the development and manufacture of microwave tubes".

Dr. Lothar Rohde, who receives the Morris E. Leeds Award "for contributions to the field of precise electronic measurement equipment for very high frequencies."

WALTER E. PROEBSTER  
Boeblingen, Federal Republic of Germany.

## STUDENT NEWS

The Region 8 Undergraduate Student Paper Contest will be held again in 1982. The oral presentations will take place at the end of EUROCON '82, on June 18, near Copenhagen, Denmark. As usual, the contest is open to IEEE student members who belong to a student branch, and there may be only one entry per branch. All the student branch counsellors have received the pertinent information, including the rules of the 1982 contest. There will be three prizes, the first one being a trip to US or Canada. The deadline is on or before February 15, 1982 on the desk of the SAC Chairman (Laboratoire de Télécommunications, Batiment Maxwell, B-1348 Louvain-la-Neuve, Belgium. Telex: 59315 TELHY B). Furthermore, the Region 8 Committee meeting, recently held in Dubrovnik, has decided to open again a Region 8 Postgraduate Student Paper Contest. It is open to all the post-graduate students who are student members of the IEEE and who belong to a student branch. The

winner will be offered a trip to EUROCON '82, where he will be invited to make an oral presentation of his paper, and a money prize of \$300. Again, more information may be obtained from any student branch counsellor. Deadline is also February 15, 1982.

Finally, at the occasion of EUROCON '82, a general counsellor meeting will again be held, for the student branch counsellors of Region 8. This will be an opportunity to discuss various issues, among which possible action for the years to come, to promote international travel from branch to branch, and to meet with other counsellors from various countries, languages, and systems of education.

I sincerely hope that once more there will be many entries to the two contests.

Prof. A. Vander Vorst  
Region 8 SAC Chairman

## MELECON '83

The subject of Solar Energy will be one of the major themes of the Mediterranean Electrotechnical Conference, MELECON '83, to be held in Athens, Greece, on 24-26 May 1983. Prof. Antonio Luque from Spain and Prof. Jose Furlon from Yugoslavia will jointly organize the sessions devoted to this subject, which is of specific interest to Mediterranean countries but has raised interest in the whole scientific community.

Among the invited lectures to be delivered on Solar Energy, the following subjects will be covered: Advanced Solar Cells by Dr. D. L. Feucht of the Solar Energy Research Institute in Golden, Colorado, USA; Silicon Technology for Solar Energy by Prof. Pizzini of the "G. Donnegani" Research Institute in Novara, Italy; Photovoltaic Concentration by Prof. A. Luque of the Institute of Solar Energy at the University of Madrid; Solar-Thermal Electricity by Dr. Torralbo of the Centro de Estudios de la Energía in Madrid; Electricity from Solar Ponds by a lecturer from Israel; Wind Electricity by a lecturer from Germany; Electricity Storage for Solar Systems by a lecturer from the US.

The other main themes on which the Conference will concentrate are: Communication Systems, including transmission systems (codecs, modems, channels); communication switching and traffic theory; transmission, transportation and communication networks; computer communications and data transmission; communication needs in the Mediterranean countries; microwaves, antennas and optical communications; and Computers, including microprocessor applications; control and industrial automation; computer modelling and evaluation of performance; distributed processing and data bases; trends in software development; simulation and mathematical foundations of computing; computer applications in government, medicine and office automation. For further information, please contact: MELECON '83 Secretariat, c/o Prof. E. N. Protonotarios, National Technical University, 42 October 28th Street, Athens (147), Greece.



Temple of Wingless Victory in the Acropolis of Athens



*Finally available... Up-to-date Japanese R & D results in High-Technology areas... to Western scientists, R & D Professionals and Industry Managers:*

# JAPAN ANNUAL REVIEWS IN ELECTRONICS, COMPUTERS AND TELECOMMUNICATIONS, 1982

During the past decade Japan has emerged as a leading manufacturer of electronic components, computers and telecommunications equipment. Underlying this remarkable industrial development lies an R&D effort which is little known nor appreciated outside Japan. The fact that the country has a positive balance of sales of industrial rights gives an indication of the high level of knowledge available in the above areas.

Yet the information about Japanese R&D in these high technology areas is scarce outside Japan. To improve this balance of information in the electronics fields, a new serial will commence which will report on the latest developments in four key areas and will be entitled:

## **JAPAN ANNUAL REVIEWS IN ELECTRONICS, COMPUTERS AND TELECOMMUNICATIONS, (JARECT) 1982**

Each of the four Annual Reviews will appear as a complete volume during the year. Each volume is edited by an outstanding Japanese expert in each topical area, and contains contributions from the most advanced governmental, industrial and academic R&D centres. The serial is the most ambitious attempt so far to bring key electronics information from Japan to the attention of the world industrial and research environments. These Annual Reviews are also expected to be of great value to governmental and other policy-making and business agencies involved in the microelectronics, computer and telecommunications areas and their applications.

### **Price/Ordering Information:**

Each volume is priced at Dfl. 310.00/US \$124.00  
The set-price for 4 volumes is  
Dfl. 1.240.00/US \$496.00  
ISSN: 0167-50036

### **Reduced introductory offer valid until March 1, 1982:**

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P.O. Box 211, 1000 AE Amsterdam, The Netherlands.

JARECT 1982 consists of the following four volumes:

### **Volume 1:**

## **Semiconductor Technologies 1982**

Editor: J. Nishizawa

380 pp; To appear in December 1981

25 review articles on key topics such as Device Physics, Process Technology, Semi-conductor Lasers and its Application, SIT and its Application, and VLSI Technology.

### **Volume 2:**

## **Amorphous Semiconductor Technologies & Devices 1982**

Editor: Y. Hamakawa

380 pp; To appear in December 1981

18 review articles and 7 key research papers on Amorphous Semiconductors, Amorphous Silicon, Chalcogenide Semiconductors and Devices.

### **Volume 3:**

## **Optical Devices & Fibers 1982**

Editor: Y. Suematsu

approx. 350 pp; To appear Spring 1982

35 key subjects are discussed in review form divided into 4 sections: Devices, Components, Fibers and Systems.

### **Volume 4:**

## **Computer Science & Technologies 1982**

Editor: T. Kitagawa

approx. 350 pp; To appear Spring 1982

A review of the most recent trends and achievements in the field of computer science and technologies. The 31 contributions are divided into 6 chapters: Pattern Information Processing System (PIPS), Natural Language Processing, Software Engineering, Data Base and Knowledge Base, Knowledge Engineering, and Computing Theory.



## NEWS OF THE SECTIONS

### **BENELUX SECTION (Chairman Professor Roger J. von Overstraeten)**

During 1981 technical meetings were held on the following subjects:– January 29: Satellite radio and television broadcast, Eindhoven; February 29: Electronics and education, Delft; April 9: Pattern recognition, Utrecht; May 12: Digital transmission, Leidschendam; September 2: Electronic filters, Enschede; September 29: Computers in instrumentation, Amsterdam; October 13: Digital local networks, Leidschendam.

The program of meetings was organized in cooperation with two national engineering societies, i.e. the Netherlands' Electronics and Radio Association (NERG) and the Telecommunications Section of the Royal Institute of Engineers (KIVI). This joint program, which has been in effect for some years, proves to be a very effective way to serve the engineering community in The Netherlands. Attendance at these meetings usually is about 100 persons.

Separately, the IEEE Benelux Section organized a one-day Symposium on Software Engineering which was held in Liège on April 2.

The 2nd International Conference on Visual Psychophysics and Medical Imaging was organized jointly by the Benelux Section and the Vrije Universiteit of Brussels. The Conference attracted scientists and engineers working in the medical imaging field, display systems, and perception research. It was cosponsored by the Region 8 and the IEEE Engineering in Medicine and Biology Society.

37 papers were presented.

Two new Student Branches, at the Universities of Delft and Eindhoven, are now entering their second year and are firmly established. The Section is encouraging new branches with a certain amount of start-up money, and sponsorship of student participation at international meetings like Eurocon.

### **DENMARK SECTION (Chairman Mr. Stig Skelboe)**

On August 26, Mr. Jens Wested lectured on an invention of his: The Invisible Sound Barrier. The barrier is a horizontal corrugated structure which has remarkable acoustic attenuation properties. Two lectures are scheduled for the winter period.

The section has the following membership development activities which are mainly aimed at the students:

Last year an attempt to establish a Student Branch failed, but we are trying again, with special reference to the Student Paper Contest in connection with the EUROCON '82.

IEEE is presented to the freshmen at an introductory meeting at the Technical University of Denmark.

A Student Paper Contest is going to take place in connection with the EUROCON '82.

An IEEE stand is planned for the EUROCON '82 displaying IEEE publications and activities.

### **EGYPT SECTION (Chairman Eng. Saleh Amer)**

The IEEE, Egypt Section was established in 1956. The present membership is approx. 164, including 35 students. This year, Egypt Section is working in close cooperation with the National Society of Electrical and Electronic Engineers, and has participated in different technical activities including lectures, seminars, workshops and conferences. We are also preparing for some future activities for the remaining of this year and the year to come. Continuing education for our engineers and the opening of new student sections are given special attention.

Following are resumé about sections and about our immediate plans:

Technical activities in 1981 included: 1. "Minicomputer Applications and Local Computer Networks" by Prof. J. Meglynn, University of California, President of IEEE Computer Society, January 3 1981; 2. "Nuclear Energy For Electric Power Generation in Egypt" by Prof. El-Foolly, Vice President of the Egyptian Nuclear Energy Organization, April 22, 1981; 3. "Work shop on Applications of Operations Research" Feb. 3-5 1981, in collaboration with Zaazig Univ. Egypt; 4. "MECO" '81, Symposium on Measurement and Control" Cairo September 1-3, 1981; in collaboration with the international organisation IASTED; 5. "SMED '81, Symposium on Simulations and Modelling for Development", Cairo, September 1-3, 1981 in collaboration with the international organization IASTED; 6. "Design Considerations for Nuclear Power Plants" Seminar on 22-23 September 1981 in collaboration with GILBERT/COMMONWEALTH INT'L INC.

Future activities (1981/1982) will include: Exhibition for electrical and electronic equipments produced in Egypt; Workshop on quality control, reliability and development for the electrical and electronic equipment in Egypt, Cairo, October 17-25, 1981.

A program on continuing education in telecommunication, line of sight analogue and digital micro-wave links. In collaboration with the French centre CEDUST in Egypt.

A program on "Energy Saving in Egypt". In collaboration with the National Academy of Science, Ministry of Electricity and Ministry of Petroleum in Egypt.

A meeting on "Communication Networks and Distributed Systems" under the auspices of IFIP.

The issue of a local technical magazine in Egypt.

Having a full time executive officer director for the IEEE – Egypt-section. Establishing more student sections in Egypt. We are ready to have a new IEEE student section at the faculty of electronic engineering, Munofia University.

### **FRANCE SECTION (Chairman: M. Louis-Joseph Libois)**

1981 has been marked by a new start in the activities of the France section, after five years of low rate activities due to internal difficulties. The main events of the year have been the agreement between Société des Electriciens, des Electroniciens et des Radioélectriciens (SEE) and Institute of Electrical and Electronics Engineers (IEEE) in order to promote technical, scientific and professional engineering activities in France through closer cooperation, and to assist members in the France section with the transfer of their payments (to IEEE) and the election of a new section committee.

The first decisions of the new committee have been to develop information inside the section, in that (a) A new directory has been prepared and is to be published; (b) In order to establish a dialogue between the committee and the section members, publication of a quarterly bulletin has been proposed, and (c) An information note on the admission conditions to fellow grade, on the IEEE awards, on the students IEEE contests and more generally on presentation of IEEE is to be sent to members and to potential members. At the same time, membership development will be promoted.

A list of conferences is planned to be organized with SEE. One already took place in June on "Business telecommunication networks". Several symposiums will be organized during 1982 in France by IEEE societies and will be sponsored by France section.

Visits will be organized to research centers, and two visits are forecast:– one to the "Centre National d'Etudes des Télécommunications" in Lannion, the other to the IBM centre in Montpellier.

Future plans are oriented towards better information about IEEE among the scientific population (thus helping membership development) and better information for IEEE members about what is going on in the technical area in France and elsewhere.

### **GREECE SECTION (Chairman Prof. E. N. Protonotarios)**

A special event during this period was the visit by the IEEE President, Dr. Richard W. Damon to Greece along with the Region 8 Director, Prof. Dr. Walter E. Proebster, the IEEE Executive Director and General Manager, Mr. Eric Herz, and Prof. Larry K. Wilson IEEE Vice-President for Regional Activities. Their visit was highly appreciated by the Section officers.

Preparations for MELECON '83, which is going to take place in Athens on 24-26 May, 1983, are actively under way. The first call for papers has already been distributed to Region 8 members through our Newsletter. Many requests for information have already been received.

Last June two very interesting lectures were presented to the Greek IEEE Membership. Professor N. Georganas of the University of Ottawa, gave a very interesting talk to a large audience, titled: "PLATO: The Local Computer Network of the University of Ottawa".

The other lecture was given by Professor John Mylopoulos of the Department of Computer Science of the University of Toronto. The subject of the lecture was: "TAXIS: A System for Automatic Design of Data Bases". This also was a very well attended lecture and the audience participated actively.

In July, IEEE Greece Section co-sponsored a seminar on Digital Signal Processing, which was held at the Democritus Research Centre in Athens.

On September 24th, a panel discussion concerning graduate studies in Electrical Engineering and Computer Science abroad was organized by the student Branch at the National Technical University of Athens.

### **MIDDLE & SOUTH ITALY SECTION (Chairman Prof. Vito Capellini)**

**Awards and Fellows.** Prof. Luigi Paris, ENEL, Rome, was officially awarded with IEEE fellowship by the Chairman of the Section, Prof. V. Cappellini, in occasion of the Section Technical Meeting held at Faculty of Engineering, University of Rome on May 5, 1981.

**Membership Development.** The mean percentage increase was about 6.6% in the period September 1980 – August 1981. In the same period the mean percentage increase for student membership was about 9.0%

**Conference Activities.** Two Conferences were sponsored by the Section: April 21-24, 1981, Fondazione Giorgio Cini, Venezia, Italy. "The Fourth F.A.S.E. Symposium on Acoustics and Speech"; September 2-5, 1981, Palazzo dei Congressi, Florence, Italy. "International Conference on Digital Signal Processing". The Conference, held in cooperation with the IEEE ASSP Society, was also sponsored by Imperial College of Science and Technology, London and by the Facoltà di Ingegneria, University of Florence, Italy. About 150 papers were presented in 36 Sessions on digital filtering transforms, image processing, hardware and software implementations with applications in the fields of communications, radar, biomedicine, remote sensing, pattern



recognition and robotics. About 300 participants from 30 nations attended the Conference, which was very successful. The Proceedings were printed and remain available.

**Section Meetings Program:** April 10, 1981. Faculty of Engineering, University of Rome. "In-vivo measurements of the dielectric properties of biological tissues" by M. Stuchly and S. S. Stuchly of the University of Ottawa, Ottawa, Canada; May 5, 1981. Faculty of Engineering, University of Rome. "Research activity at the Department of Electrical Engineering of the University of Toronto", by A. N. Vènetsanopoulos of the University of Toronto, Toronto, Canada; May 12, 1981. ENEL, Rome. Workshop on "Sale controllo e rapporto uomo-macchina"; May 21, 1981. ENEL, Rome. "Engineering Education in Italy" by G. B. Stracca, Politecnico di Milano, Milano, Italy.

**Committee Meetings** were held on March 4, May 21, Sept. 4 and Sept. 29.

On May 21, 1981 (ENEL, Rome.) the Section Executive Committee had a meeting with Prof. R. W. Damon, President of IEEE, Dr. E. Herz, IEEE Executive Director, Dr. L. K. Wilson, Vice-President - Regional Activities, and Prof. W. E. Proebster, IEEE Region 8 Director.

#### NORTH ITALY SECTION (Chairman dott. ing. Mario Sforzini)

**Standing Committees of the Section** At the meeting of the Executive Committee of the Section on October 7, 1981, the setting up or reorganization of a few Standing Committees was discussed, namely: Membership Development and Awards, Publicity and Intersociety, Educational Activities, Student Activities, Professional Activities.

**Lectures and Conferences** organized or cosponsored by the Section. Between October 1980 and October 1981, 18 lectures have been held at the Turin and Milan Sections of the Italian Electrical and Electronic Association (AEI). As regards future activities, programs are now being established. In particular, lectures on corona from UHV power plants, lighting phenomena, design and optimization of transmission lines, methods for planning of electric networks, are now being agreed upon with the Milan Section of AEI.

Other possible lectures in other areas of interest for the IEEE North Italy Section are under discussion.

In the period October 1980 - October 1981, 4 International Conferences have been organized in North Italy, sponsored by the IEEE North Italy Section and other organizations.

As regards future activities, in addition to two international conferences, preliminary agreements have been taken between the IEEE North Italy Section and AEI to organize jointly between AEI and IEEE the next

annual AEI meeting, which will be held in Bologna in September 1982 on the subject "Electricity and the Territory". The IEEE Sections should be directly responsible for the full technical organization of a section of the meeting: a Panel discussion with participation of experts from abroad is under consideration.

**Collaboration with AEI.** Contacts have been made to better define the terms of the existing collaboration between the IEEE N/I Section and the Italian Electrical and Electronic Association (AEI). Of course, this collaboration implies a joint position of the two IEEE Italian Sections in respect of AEI.

In particular, measures will be taken by both AEI and the IEEE Sections in view to increasing the number of members.

#### NORWAY SECTION (Chairman Prof. Sorje A. Forssell)

**Conference Activities.** In June 1981 the Section arranged the 34th Norwegian Conference on Electronics and Acoustics, in cooperation with national societies. The following papers were presented by IEEE members: T. Scheel: "A new maritime emergency and security system"; M. Bayegan: "Final results of the EPOKE program"; E. A. Herland: "The mapping radar on board the SEASAT-1 satellite"; G. Stette: "Alarm and emergency communication by satellite"; G. Bjøntegaard et al.: "An earth-station antenna for maritime satellite communication"; P. Spilling: "Packed radio communication"; H. Dahl: "Tasks, possibilities and impossibilities for Norwegian electronics industry in the future"; J. G. Balchen: "The utilization of complete numerical models for the study of large complicated systems."

With regard to EUROCON '82, the Association of Norwegian electronics industry has been notified of the Exhibition possibilities at the conference.

**Membership Development.** Section membership is steadily increasing. Like other Sections in Region 8, the Norway Section have been notified by Headquarters of the number of arrears. This problem, however, mainly seems to stem from non-Norwegian nationals moving into and out of the Section. Senior membership as well as student membership is also increasing, and an agreement of cooperation with the student association at the Norwegian Institute of Technology is being considered.

**Awards and Fellows.** Some senior members are being considered for Fellow nominations.

**Continuing Education.** Because of small funds, the Section has difficulties in financing its own continuing education activities. However, steps have been taken to form arrangements in cooperation with national societies.

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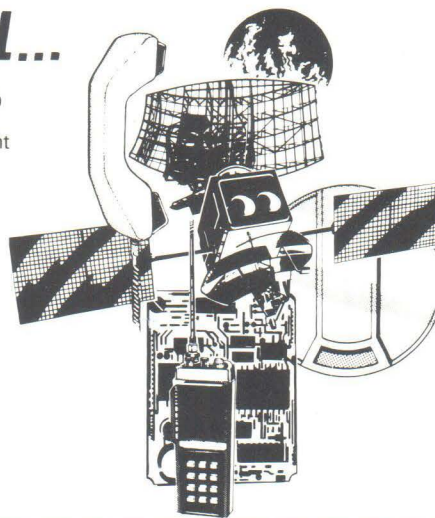
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- International Telecommunication Union
- British Government - through the Home Office and the Department of Industry
- British Telecom
- and the two leading UK trade associations
- Electronic Engineering Association
- Telecommunication Engineering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

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



## Communications

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

**Communications 82** is organised by Industrial and Trade Fairs Limited  
Radcliffe House, Blenheim Court, Solihull, West Midlands, England  
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Number of admission tickets required  \*Please indicate as appropriate



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

**Section Committee Chairman.** The following Chairman of four Committees were approved by the Section Executive Committee in September 1981: Prof. Andrzej Filipkowski, Publications; Doc. Jan Nasikowski, Professional and Educational Activities; Prof. Wiesław Seruga, Membership and Transfer; Prof. Adam K. Smolinski, Nominations.

**Section's Executive Committee Meetings.** The Section Executive Committee met on December 3rd, 1980; March 11, June 16, and September 1, 1981.

Professor Smolinski, Section Past Chairman, visited the IEEE HQ twice: on May 8, and August 28, 1981. He discussed Section's financial matters.

On April 23, 1981, Professor Karol Wajs of Institute of Electrical Engineering/Instytut Elektrotechniki/ in Warsaw gave the lecture on "Science and Untruth". The paper was highly appreciated by the audience.

**Membership and Dues Arrears:** Membership of the Section as of August 31, 1981 comprised 36 active members, and 21 in arrears with dues, some of which have now been paid. At least 16 arrears paid the dues by the end of April, 1981, but until today the amounts have not been received in the IEEE HQ. The Section is anxious as to how it will be possible to pay the dues for the year 1982.

## SWEDEN SECTION (Chairman: Prof. Per A. Tove)

At a meeting on September 23 Dr. Billy Crowder gave a much appreciated IEEE lecture on Refractory Metal Silicides. The talk covered properties and the use of silicides in high-density packed VLSI circuits.

The following seminars are planned: Dr. David Quarmby: Microprogrammable Electronics; Dr. A. Svärdröm: Homomorphic Filtering Applied to Bat Signals; Prof. L. H. Zetterberg: Switched

Capacitor Filtering; Prof. P. A. Tove: New Developments in Thin Film Technology.

Chairman and other officers of the Section permutates between the Swedish Institutes of Technology, every second or third year. Next in turn (after Uppsala) is Linköping University.

The Sweden Section was visited in September by Dr. Billy Crowder, LBM Watson Research Lab., Yorktown Heights, who gave two much appreciated lectures on Silicides in VLSI Technology in Stockholm and Uppsala. Swedish interest in VLSI Microelectronics is continuously increasing both in industries like L. M. Ericsson and ASEA and in the universities where teaching of how to construct custom-design circuits (CAD) is introduced.

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

**Forthcoming Meetings.** On November 25 at 14.30, a joint meeting of ED and PC Chapters will be held at Imperial College, London SW7, (Dept. of Electrical Engineering). This will be a discussion meeting on "The presentation of technical papers" and will include talks by Mr. B. G. Scott (Chief Engineer of Thames Television Limited), by Prof. A. S. C. Ehrenberg (London School of Business Studies), Dr. Roger Woodcock (GEC-Marconi Radar Systems Ltd., and Dr. Sinclair Goodlad (Imperial College).

For further information contact Mr. Brian Harrington on 0277-218144.

**Recent London Meetings** included a popular-level talk "In celebration of the Pioneers and Voyagers to Jupiter, Saturn and beyond" by Dr. William W. Ward of M.I.T. This was presented at Kings College, London on 14th October.

On 28th October, also at Kings College, Mr. E. J. Gargini (of Rediffusion Engineering) is to speak on "Cable Television and interactive services".

**Membership** of UKRI Section IEEE continues to increase steadily, with a total of 1763 (all grades) at the end of August 1981, compared with 1663 in August 1980. We should be well above 2000 by the time of EUROCON '84.

## MEETINGS IN REGION 8

### International Symposium on Information Theory.

The 1982 Symposium will be held in Les Arcs, an Alpine resort near Bourg St-Maurice, Département de Savoie, France, June 21-25 1982. Les Arcs, which has excellent facilities for both conferences and recreation, can be reached from the airports at Geneva (150 km) or Lyon-Satolas (200 km) or by train to Bourg St-Maurice.

Papers presenting new results in information theory and related fields are solicited. Areas to be covered include: Classical and quantum communication systems; Complexity; Cryptography; Data compression; Data networks; Detection and estimation; Error-control coding; Multi-user information theory; Pattern recognition; Shannon theory; Stochastic processes; Applications of information theory to various fields, such as speech and image processing, statistical mechanics, and VLSI.

General enquiries to:

Prof. Bernard Picinbono Labo. des Signaux and Systèmes École Supérieure d'Électricité Plateau de Moulon F91190 Gif-sur-Yvette France. Tel. No. 941.80.40; or

Prof. Carl W. Helstrom Dept. of Electrical Engineering and Computer Sciences, C-014 University of California San Diego, La Jolla, CA 92093 USA. Tel. No. (714) 452-3816.

### 1982 Journées d'électronique of EPFL on Optoelectronics in Telecommunications and Measurement Systems.

The "Journées d'électronique of EPFL" is an annual international conference held at the Swiss Federal Institute of Technology (Ecole Polytechnique Fédérale) in Lausanne and co-sponsored by the IEEE Region 8 and the IEEE Switzerland Section. Official languages are French and English, with simultaneous translation provided. The aim of this symposium is to review the current status, discuss the future trends and present innovative ideas or results on a subject of timely interest in the electronic field.

The next conference, to be held from October 12 to 14 1982, will be devoted to the theme: Optoelectronics in telecommunications and measurement systems.

The relevant optoelectronic fundamentals will be reviewed in a first tutorial day. The next two days will be devoted to special sessions on *Optoelectronics in measurement systems* and *Optoelectronics in telecommunications*.

Authors of tutorial or specialized papers on these subjects are invited to submit a proposal, based on a full text or a detailed summary, respectively, before March 15 1982, to: Selection Committee, Journées d'électronique, EPFL, 16 Chemin de Bellerive, CH-1007 Lausanne (Switzerland). Further information and a more detailed Call-for-papers can be obtained from the above-mentioned address.

### Second World Conference on Continuing Engineering Education

Organized by the European Society for Engineering Education, SEFI, under the sponsorship of the International Association of Universities,

the Standing Committee or Rectors, Presidents and Vice-Chancellors of the European Universities, and various other international organizations. Region 8 is represented by Mr. M. Popo.

The aim of the Second World Conference, in Paris 6, 7 and 8 April 1983, is to provide an international forum for discussing key problems

## IEEE REGION 8 AND THE MIDDLE AND SOUTH ITALY SECTION ANNOUNCE THE CO-SPONSORSHIP OF THE 29TH INTERNATIONAL CONGRESS ON ELECTRONICS TO BE HELD IN ROME, PALAZZO DEI CONGRESSI, 23-24 MARCH 1982, DURING THE 29TH INTERNATIONAL EXHIBITION OF ELECTRONICS, NUCLEAR ENERGY AND AEROSPACE TECHNOLOGY

Theme: The contribution of electronics and telematic systems in the postal services.

The following sessions are planned:

1. Electronics and informatics in support of existing postal services.
2. Electronic equipment for handling, sorting and transmitting correspondence (electronic mail).
3. Post Offices with telematic facilities.
4. Security - Technical problems and legal questions.

Seminar:

Electronics in medical applications for rehabilitation (sponsored by Italian Association of Medical and biological Engineering, AIIMB).

Written contributions will be considered. Accepted papers will be published in the Proceedings of the Congress. Those who intend to submit a written contribution must notify the Secretariat (Via Crescenzo 9, 00193 Rome, Italy) before 15 November 1981 indicating the title and enclosing a short summary.

Registration fee is 80,000 Italian lire.

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



of existing practice and future trends in continuing engineering education in a world perspective. The international character of the conference will be especially underlined. A major part of the conference will be organized in three parallel sessions. One day of the conference will be devoted to existing practice and another day will be devoted to future trends. Authors are requested when they submit their abstract to say whether their paper describes existing practice or future trends.

Authors wishing to contribute to the conference should send an abstract of their proposed contribution (maximum one typed page) before 15 March 1982, to the Chairman of the Programme Committee: Prof. Dr. Ing. Dieter Seitzer, Lehrstuhl für Technische Elektronik, Universität Erlangen-Nürnberg, Cauerstrasse 9, D8520 Erlangen, Germany.

Airmail the abstract (with twelve clear photocopies) with cardboard backing and five self-addressed gummed labels.

In order to facilitate a free exchange of information and views, authors are urged to use the English language in their written and oral presentations. Papers and oral presentations in French, German and Spanish will also be accepted provided the papers include a summary (200-300 words) in English.

Further information from: The European Society for Engineering Education, SEFI, 51 Rue de la Concorde, B1050 Bruxelles, Belgium.

## MEETINGS OUTSIDE REGION 8

### The International Test Conference.

The IEEE Computer Society organizes an "International Test Conference" each year in Philadelphia and the 1982 meeting will be held at the Franklin Plaza Hotel from November 16-18. This is the premier international conference on the testing of semi-conductor devices and allied components and assemblies attracting over 2000 attendees and providing a forum that focuses principally on the problems of testing LSI/VLSI devices and assemblies as viewed by designers.

Topics of interest include, but are not limited to, the following areas: computer aided test; memory test; microprocessor and VLSI/LSI test; test equipment and methods; design for testability; analogue and hybrid design; test software; self-test; test economics; quality and reliability test; systems test; board test; manufacturing process; design verification.

The European Programme Sub-Committee would like to encourage an increase in the level of European participation in this conference and those interested in presenting a paper at the conference should submit a 35-word abstract and a 300 to 500 word summary (double-spaced) in ten copies to the address below. The summary should define the purpose of the work, what results have been obtained, and how the paper advances the art. Include your telephone number and the appropriate session on the abstract and summary. The paper should be suitable for a 20-minute presentation. The abstract and summary deadline is March 1, 1982. Final typed papers should be a minimum of 1500 words and are due August 1, 1982. Papers to be submitted to A. B. M. Elliot, British Telecom Research Laboratories, Martlesham Heath, Ipswich, Suffolk, England, IP5 7RE.

### 1981 International Electron Devices Meeting

The Annual Technical Meeting of the Electron Devices Society will be held in Washington, DC, December 7-9 1981. Meeting highlights will be: Presentation of Awards (David Sarnoff, Harry Diamond, J. J. Ebers and 1980 Student Best Paper) and an Evening Panel Discussion on Materials and Processes.

Areas to be covered: Solid State Devices; Device Technology; Integrated Electronics; Electron Tubes; Energy-Conversion Devices; Quantum-Electronic Devices; Detectors, Sensors and Displays.

Further information from: Melissa M. Widerkehr, Conference Manager, Courtesy Associates, Inc., 1629 K Street, N.W., Suite 700, Washington, D.C. 20006, U.S.A. Telex No. 892407.

### 1982 International Solid-State Circuits Conference.

The IEEE International Solid-State Circuits Conference, sponsored by the IEEE Solid-State Circuits Council, the IEEE San Francisco Section and Bay Area Council, and the University of Pennsylvania, will be held in San Francisco, February 10-12, 1982.

Areas of interest are: Digital, Analogue, Microwave, and other areas.

Further information from: Prof. P. Jespers, Universite Catholique de Louvain, Place du Levant 3, B-1348 Louvain-La-Neuve, Belgium. Tel: 010/41.81.81-2564.

### Third International Symposium on Gaseous Dielectrics

The Third International Symposium on Gaseous Dielectrics will be held March 7-11, 1982 in Knoxville, Tennessee, USA. The purpose of the meeting is to provide a forum for review and discussion of the progress and the problems of current interest in gaseous dielectrics and their use, especially as insulators in high voltage transmission lines and sub-stations.

The meeting is sponsored by the Oak Ridge National Laboratory and the US Department of Energy, in co-operation with the Electric Power Research Institute and the Power Engineering Society of the Institute of

### Third International Conference on the Numerical Analysis of Semiconductor Devices and Integrated Circuits

NASECODE III is to be held 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, 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.

The deadline for the receipt of abstracts and preliminary versions of 20-minute contributed papers is 18 February 1983.

A short course of relevance to the conference will be held in association with NASECODE III on 13 and 14 June 1983.

Further information from: NASECODE Conference, 39 Trinity College, Dublin 2, Ireland. Telephone: +353-1-772941, ext. 1889/1949; Telex: 25442 or 3116/TCD EI; Telegrams: TRINITY DUBLIN.

Electrical and Electronics Engineers. Symposium Chairman is Prof. L. G. Christophorou. For information, contact Dr. Donald W. Bouldin, Oak Ridge National Laboratory, 4500S, H-158, P.O. Box X, Oak Ridge, Tennessee 37830, USA. Telephone: (615) 574-6199.

### 1982 International Reliability Physics Symposium

The Twentieth Annual Symposium, co-sponsored by the IEEE Reliability and Electron Devices Societies, March 30 - April 1, 1982, in San Diego, California, emphasizes device reliability as the dominating influence in the development of new VLSI technologies and circuit designs. With the awareness that today many technology decisions are based on the trade-off of one reliability physics concern versus another reliability concern, the 1982 Symposium will emphasize the reliability physics of LSI and VLSI devices from design through processing, packaging and testing.

Papers will deal with work on: Physics of Failure Mechanisms; Failure Analysis Techniques; Accelerated Testing and Screening; and Design and Process Control for Reliability.

A special one-on-one session is also planned for significant papers on very specialized subjects and papers with high mathematical content. In this session, authors will display significant data, equations and a summary of their work on posters or other suitable format and be available during the entire session to discuss their work.

For further information contact: Dr. Murray H. Woods, General Chairman, 1982 International Reliability Physics Symposium, Intel Corporation, 3065 Bowers Avenue, Santa Clara, CA 95051 (Mail Stop SCII-C241), USA. Tel: (408) 987-8802.

### Conference on Lasers and Electro-Optics

The Conference on Lasers and Electro-Optics, CLEO '82, will be held April 14-16, 1982 at Phoenix, Arizona. This second annual CLEO conference is organized and sponsored by the Optical Society of America and the Quantum Electronics and Applications Society of the Institute of Electrical and Electronic Engineers. CLEO combines the former biennial Conference on Laser Engineering and Applications (CLEA) and the biennial Conference on Laser and Electro-Optical Systems (CLEOS), not only in name but in purpose as well. The meeting will provide a central forum for up-dating and review of a wide range of laser and electro-optic disciplines from fundamental research and device development, to systems engineering and applications and will serve to stimulate the use of the more mature technologies in other fields.

In addition to the presentation of a high-quality technical programme, CLEO '82 will include a plenary session with distinguished speakers, an extensive group of invited speakers, and poster and post-deadline sessions.

Selected short courses for review and professional advancement, supplementing the regular technical sessions, will be held on the day preceding the conference, Tuesday April 13, 1982. A large technical exhibition will also begin on this day.

Some of the topics to be considered are: Lasers including solid-state, semi-conductor, dye, excimer, molecular, chemical, free-electron, metal vapour and plasma-recombination lasers; In Situ laser diagnostics of conventional micro-electronics processing; Optical switching and logic elements including deflectors, modulators, couplers, multiplexers and bistable devices; Optical memory and storage including videodisk technology; Optical computers; Fundamental and practical limits for optical signal processing elements; Optical fibre communications including devices, components, sub-systems and systems.

Further information from: CLEO '82, c/o Optical Society of America, 1816 Jefferson Place, N.W., Washington, D.C. 20036; or Heinz P. Weber, Institute of Applied Physics, University of Berne, Sidlerstrasse 5, 3012 Berne, Switzerland.



## Conference on Optical Fibre Communication

This conference to be held April 13-15 1982 in Phoenix, Arizona, is sponsored by the Quantum Electronics and Applications Society of the Institute of Electrical and Electronics Engineers and the Optical Society of America. The intent of the conference is to provide a forum for both invited and contributed papers on Optical Fibre Communication and related topics ranging from basic research to hardware manufacture and systems development. To this end, the conference will be divided into three principal areas: fibres and cables; components – active and passive; and systems and new fibre applications.

Additional information from: Optical Society of America, 1816 Jefferson Place, N.W., Washington, D.C. 20036, USA. (202) 223-8130.

## 1982 Joint International IEEE/APS Symposium, National Radio Science Meeting, and Nuclear Electromagnetic Pulse Meeting.

The 1982 International Symposium sponsored by the IEEE Antennas and Propagation Society (AP-S); the National Radio Science Meeting sponsored by USNC/URSI Commissions B. (Fields and Waves), E (Electromagnetic Noise and Interference) and F (Wave Phenomena in Nonionized Media); and the Nuclear EMP Meeting (NEM) sponsored by the Permanent NEM Committee, and in co-operation with the Harry Diamond Laboratories (ARMY), Naval Surface Weapons Center, Air Force Weapons Laboratory and Defence Nuclear Agency, will be held jointly on the campus of the University of New Mexico, Albuquerque, May 24-28, 1982. The technical sessions for IEEE/AP-S, USNC/URSI and NEM will be co-ordinated to provide a comprehensive and well-balanced programme. Authors are invited to submit papers on all topics of interest to the AP-S and URSI membership. Consideration will be given to papers on other subjects. All summaries and abstracts must be received before January 4, 1982.

Detailed requirements for abstracts etc. from: Dr. Kendall F. Casey, The Dikewood Corporation, 1613 University Blvd. N.E., Albuquerque, New Mexico 87102, USA.

## 1982 MTT-S International Microwave Symposium

The 1982 IEEE MTT-S International Microwave Symposium will be held in Dallas, Texas, June 15-17, 1982. The symposium theme "Thirty Years of Microwaves" will feature a review of the past, an assessment of today's state-of-the-art, and a glimpse into the future.

Papers are solicited describing original work in the field of microwaves. Any papers concerned with microwave techniques, devices, systems and applications will be considered. Tutorial papers which review the maturation of the listed fields during the past thirty years are also requested.

Authors are requested to submit five copies of both a 35-word abstract and a 500-1000 word summary (up to six illustrations) on or before January 8, 1982 to: Steven L. March, TPC 1982 MTT-S Symposium, COMPACT Engineering Div., GGIS, P.O. Box 401144, Garland, Texas 75040, USA.

## Computer Society Conferences

The following list of international conferences has been extracted from the complete list of conferences and meetings issued by the Society on 22 June 1981.

March 15-18, 1982: International Workshop on Physics and Engineering in Medical Imaging, Asilomar, CA. Contact: O. Nalcioglu, Dept of Radiological Sciences, University of California, Irvine, California 92717.  
April 26-29 1982: Ninth International Conference on Computer Architecture.

May 3-5 1982: International Workshop on Industrial Applications of Machine Vision, Raleigh, NC. Contact: J. L. Mundy, G. E. Company CRD, P.O. Box 8, Schenectady, NY 12301. Telephone (201) 949-2339.

May 25-27 1982: International Symposium on Multiple Valued Logic, Paris, France. Contact: Jon Butler, Dept EE Code 62-TR, Naval Post-Graduate School, Monterey, California 93940.

September 13-17 1982: Sixth International Conference on Software Engineering.

October 17-18 1982: Third International Conference on Distributed Computing Systems, Ft Lauderdale, Florida. Contact: Distributed Computing, P.O. Box 639, Silver Spring, MD 20901. Telephone (301) 589-3386.

February 16-18 1983: International Solid State Circuits Conference, New York, NY.

May 1983: International Symposium on Multiple Valued Logic, Kyoto, Japan.

February 15-17 1984: International Solid State Circuits Conference, San Francisco, California.

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