

# IEEE Region 8 newsletter



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
INCORPORATED

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## MESSAGE FROM THE NEW REGIONAL DIRECTOR



I am grateful to Professor Stumpers for his invitation to me to attend the Region 8 Meeting in Athens in October 1976 which was organised in an excellent manner by Professor John A Tegopoulos and his staff.

On 24 November Miss Emily Sirjane called from the Headquarters in New York and informed me that President Elect Robert M. Saunders wanted me to attend a Regional Activities Board Meeting and a Board of Directors Meeting at Orlando, Florida on 2-5 December.

During these meetings it was encouraging to hear from important IEEE people both during the meetings and also privately that they wanted IEEE to remain transnational. My

happiness about that was, however, attenuated many decibels when the regional rebates of Region 7 (Canada) and Region 8 were cut quite a bit in spite of the fact that both the Region 7 Director and Professor Stumpers tried hard to prevent it. The rebates of Regions 1-6 inside the United States and Regions 9 and 10 outside were not cut.

During his time as Region 8 Director Professor Stumpers has devoted a lot of time to regional activities. He has done a good job and has regularly reported to members through the Newsletter. I shall try to follow his example during the next two years.

The highlights during 1977 will be the IEEE-EUREL conference EUROCON at Venice on 3-6 May. Let us all spread information about this important conference as widely as possible. See you at EUROCON-77!

E. FOLKE BOLINDER,  
Region 8 Director 1977-78.

## REPORT OF THE OUT-GOING REGIONAL DIRECTOR



The last quarter of 1976 was quite a busy one. On 20 September I was invited to the opening meeting of the International Broadcasting Convention in London, where Admiral of the Fleet, Lord Mountbatten of Burma gave the inaugural address. Though 76, the Admiral, tall and straight, showed in his lecture that he was well aware of the latest developments in electronics. He is still President of the UK Research Council. More than 30 years ago he was Commander in Chief South East Asia during World War II, and later Viceroy of India. The invitation

showed the good relations between IEE and IEEE, which had made it possible to start a student section in UK. (89 members). On 21 September I had a meeting of the Regional Activities Board in New York, on 22 September a meeting of the Intersociety Relations Committee, on 23 and 24 September a meeting of the Board of Directors and on 25 September a meeting of the Long Range Planning Committee. During the same week I should have been in Wroclaw at the Electro-magnetic Compatibility Symposium, where I was Chairman of the Program Committee. There were about 200 participants at this meeting, and about 125 papers were printed in the Symposium book. The coincidence was unfortunate and I tried immediately after the first announcement of the September meeting in December 1975 to get the date changed. The Board of Directors decided it wanted the

last meeting in 1976 after the result of the election was known, but President Dillard wanted to have an early approval of the budget, and the September meeting had to take place, unfortunately at the days fixed originally. The following Wroclaw EMC symposium is expected to occur simultaneously with a CISPR meeting, which should encourage more international participation (1978).

On 12 October (Columbus day) the Director received the Medaglia d'Oro of the City of Genova, Italy. The scroll especially mentioned his international activities. It was quite a festive occasion and the mayor of Genova gave a long speech on the meaning of Columbus day. On the same occasion the Columbus Award was given to Mr. Miller (3 M) a medal for sports to a girl from Cuba (represented by its Consul) and the Paganini medal to a young lady from Roumania, who expressed her thanks by playing on the Paganini violin of the city. My attempt to reply in Italian was appreciated. However, when I gave a lecture at the International Institute of Telecommunications on the next day: "On the optimality of the simplex set," I preferred English (there was simultaneous translation).

On 29 and 30 October the Regional Committee met in Athens, Greece. Through Professor Tegopoulos efforts our meeting had been classified as a special event, for which the IT air tariff was valid. The Power Company of Greece provided its Directors' meeting room, the lunch and an excellent dinner at the end of the first day. The Hellenic Telecommunications Association provided a very good lunch on the second day in the exclusive surroundings of the Athens' yacht club in Pireaus, and since we had finished in the morning, many of us visited the Acropolis that afternoon. On Sunday we enjoyed a trip to Delphi, offered with the lunch, by the Greek tourist organisation. The meeting was honoured by the presence of Vice-President Regional Activities, Professor Saunders, Junior Past Director Russell, Student Activities Chairman Remy, Membership Development and Eurocon representative Rannestad, Awards Board member Wellinger, Secretary-Treasurer de Vrijer, and Editorial Board representative Prof. Williams were present, as well as Shavit (Israel), Kleen (F.R. Germany), Wedam (Jugoslavia), Asenjo (Spain), Gardiol (Switzerland), Smolinski

PUBLISHED QUARTERLY		JAN.	APRIL	JULY	OCTOBER
DEADLINES	News to Editor	Dec. 7	Mar. 7	June 7	Sept. 7
	Advertisements to County Secretarial Services	Dec. 15	Mar. 15	June 15	Sept. 15
	Delivery inserts to County Secretarial Services	Dec. 22	Mar. 22	June 22	Sept. 22



(Poland), Ekholdt (Norway), Stubb (Finland), Tegopoulos (Greece), Bolinder (Sweden), van der Vorst (Benelux), Ercoli (South Italy), Antognetti (North Italy). The minutes of the London meeting were approved. With regard to Headquarters mailings there was some doubt expressed on the wisdom of the choice between airmail and surface mail. The progress of the preparation for Eurocon was noted and it was suggested that an abridged version of the program should be enclosed with the January Newsletter. Dr. Wellinger stressed the necessity of thorough documentation for Fellow nominations and Awards. Professor Williams saw some dangers for the transnational character of IEEE. Professor Kleen complained about conferences organized within the territory of a Section, with cosponsorship of IEEE Groups and Societies, but without informing the Section. It was suggested, that Spectrum might be printed in Europe for Region 8 circulation. The question arose, whether nearby sections were informed in time of the organization of short courses in neighbouring sections, so as to reduce travel costs. (However the lecturers can in many cases not stay for several weeks, because of other commitments). Membership development will be taken over next year by Mr Poortvliet. The Israel Section distributed its agreement with the national society, but because it came in so late, the Director decided not to have it discussed. (I do not think that discussion serves any purpose, since the contract involves IEEE Headquarters, the Section and the national society and none else). There was an exhibition of supplies available to Sections from IEEE Headquarters, and Dr. Rannestad also brought propaganda material. The possibility of affiliate membership for those members of national societies only interested in one IEEE Group or Society was discussed, and Mr. Shavit said that there would be an interest in it in his country with regard to the Computer Society. The general feeling was, that one should proceed with care, in order not to lose for the sections, what the societies and groups might gain. Professor Saunders drew the attention of IEEE Headquarters and Directors to several of the subjects discussed in special memoranda. The next Region 8 meeting is foreseen for Venice, probably 6 May and 7 or 7 and 8, 1977.

On 1 November the Director gave a lecture for the Greek Section and the Technical University of Athens on "Digital signal processing and digital filtering," which led to a good discussion. There was a very pleasant dinner with officials of the Greek Section and Professors of the Technical University afterwards.

On 5 November we were informed of the IEEE election results. Saunders was elected president by 21,425 votes (Feerst 14,244, Rivers 13,145), but for executive vice-president Bayless (26,491) defeated Briskman (21,389). Bolinder became Director Region 8. The three proposed constitutional amendments failed to receive the required two-thirds majority. In general only 36% of the members, who had the right to vote, also used it, and in Region 8 the percentage was even lower.

From 8 to 12 November the Director acted as one of the Chairmen for a Microprocessor short course with Professors Imsong Lee and Professor van Peperstraeten as lecturers in Leuven (Belgium). The possibility of hand-on experience drew many positive comments. It was rather unfortunate that Motorola decided to have a course of its own in nearby Brussels during the same fortnight and due to this competition the IEEE course did not reach the break-even participation point. It is necessary to have the publicity earlier too. The course is really very good and can be recommended to other Sections.

On 12 November the Director had to fly to Los Angeles for a meeting of the Nominations and Appointments Committee. Suggestions from outside sources (official and unofficial) are discussed, as well as those coming forward from among the members. A difficulty is, that one does not always know that the preferred candidate is indeed available so that alternates have to be considered as well. The discussion is very careful, and takes quite a lot of time. (On 4 December the Annual Assembly, consisting of all directly elected members of the Board, approved the whole slate, as proposed, after lengthy discussion). On 26 and 27 November the Director attended the Steering Committee of Eurocon in Milan, Italy. The meeting of 26 November was especially for preparation of the students meeting. In the evening of that day Prof. Stumpers lectured on "Radio Astronomy in the Netherlands" for the Politecnico di Milano.

On 28, 29 November a meeting in preparation of the Electromagnetic Compatibility Symposium of Montreux was held in Zurich, and on 30

November the Director had to go again to USA.

In preparation for the Board meeting the Directors of Regions 8, 9 and 10 were given the assignment to show that service to non-US members does not cost more than service to US members. Mr. Jimenez made a report, based on his own ideas and on inputs from Shinkawa and myself. There are many costs in the organisation of more benefit to US members than to non US members. The report showed that a large proportion of the non US members dues goes to support of general activities and is beneficial to the Institute as a whole. It is a sign of the times that the report was necessary at all. Luckily it did not lead to controversy.

The next Board meeting took place from 1 to 5 December in Orlando, Florida. Included in my schedule was the Long Range Planning Committee on 1 December. The new structure of technical activities coming into effect on 1 January 1977 drew special attention and Spectrum will soon have an article, reviewing all these plans. December 2 was the date of the Regional Activities Board meeting. Regions 1 and 6, the largest regions in USA, thought they deserved two Directors. It may be true that in RAB the proportion is not right, but in total the Board last year had ten Directors from Region 6, amongst which were many very important functions and six from Region 1. The proposal to change the representation was not accepted, but Director Wilson will try to change the boundaries of the US Regions: (1) to make them coincide with State boundaries; (2) to make them more equal in membership.

Though it had been announced that the Board would meet on Saturday from 8.30 to 5, and on Sunday from 9 to 5, President Dillard, albeit with majority approval, decided to make it a marathon session continuing to past 7.30p.m. For me this was decidedly too long, though it effectively killed any desire for discussion. On Sunday morning this had the beneficial effect that we were ready early. I brought to the attention of the Board three resolutions of the UKRI Section, one asking for more attention to be paid to the benefits of transnationality also for the US member (in the LRP Committee former president Don Sinclair volunteered to make a draft for that), one drawing attention to the possibilities of a transferable vote (it was decided to ask the opinion of the Tellers' committee) and the last one asking to bring the resolution to the attention of the Board (was so brought). Director-elect Bolinder had also been invited to these meetings.

The Inter Society Relations Committee discussed relations with other engineering societies in USA, with national and international societies, like Eurel (in Eurocon), with the Popov Society (an IEEE Group will go to the Popov Society meeting, IEEE is represented at the world electro-technical Symposium in Moscow, and a delegation of the Popov Society is invited to Compcon, a Computer Society meeting). A US delegation will probably visit the People's Republic of China, with a counterpart visit planned later.

We had quite a number of new Fellows: Proebster, Saal, Schuessler and Weiss in FR Germany, Spence (UK), Zetterberg and Jacobaeus (Sweden), El Koshairy and El Said in Egypt, Ruelle (France). I may have missed one German Fellow, who was not in the German Section in the 1975 Directory.

My correspondence, and a personal visit to Austria, have not yet led to the desired effect of the establishment of new sections in Austria, Saudi-Arabia, Turkey, though I have had some support from members living in these countries.

I think we are doing quite well in membership, and I noted with satisfaction that Professor Kleen drew the attention of his members to the fact, that in Europe, society members are expected to give due warning before the end of the year if they wish to discontinue membership. The fact that IEEE is willing to wait till 30 April for European members to pay their dues, should not be used for a free membership for four months. In fact with the present opportunity for most countries to pay dues in their own currency, everyone could well pay on time. I hope Chairmen do not wait until they are in arrears before drawing this to the attention of members.

In general I think Professor Bolinder takes over a thriving Region, which shows a lot of promise. However, there is quite a lot of work involved, and he will need all the support the members and Sections can give him. I wish him a very successful two year period as Director.

F. L. STUMPERS.

## INSTITUTE NEWS

### ATLAS Test Language Approved as IEEE Standard

ATLAS (Abbreviated Test Language for All Systems) is a standardized language for expressing test specifications and procedures. It provides a standard abbreviated English language used in the preparation and documentation of test procedures which can be implemented either

manually or with automatic or semi-automatic equipment. ATLAS is expected to complement the growing stable of IEEE instrumentation system standards.

Under development for nearly a decade under the auspices of Aeronautical Radio, Inc., ATLAS has gained widespread acceptance throughout the avionics industry. Although originally created for use



by AEEC (Airlines Electronic Engineering Committee), during recent years ATLAS has been introduced in numerous military applications and was recently designated as an interim standard for automatic test equipment by the US Department of Defense.

AEEC approved a newly reformatted edition of ARINC ATLAS at meetings held in Munich on 1 and 2 September 1976. Authorization was given at that time for adoption of ATLAS as a standard by the IEEE. Transfer of ATLAS to IEEE jurisdiction has now been arranged, which will enable the IEEE to publish the document as IEEE Std 416-1976 and provide for its continued maintenance as a language. The transition to IEEE promises a wider adoption of ATLAS. IEEE Std 416-1976 will be balloted for approval as an American National Standard in the near future. Internationally, ATLAS has enjoyed widespread acceptance within the aeronautics industry and it is anticipated that formal endorsement by IEC or ISO will augment the document's international acceptance in a broader range of disciplines.

As part of the close co-operative effort among ARINC, AEEC and IEEE to publish this urgently needed ATLAS format, the IEEE has expedited publication procedures to make the new document available from IEEE, Standards Office, 345 East 47th Street, New York, NY 10017.

## MEETINGS IN REGION 8

### NTG-Antenna Conference

After an interval of five years an antenna conference will be held at Bad Nauheim from 8 to 11 March 1977. It is organized by Technical Committee 13 of the Nachrichtentechnische Gesellschaft, a sub-group within the VDE in co-operation with the German Section of the IEEE. The entire antenna field will be covered. In particular, papers on actually implemented antennas and on theoretical and experimental antenna research and development work will be presented. The conference primarily addresses antenna experts, but also the users of antennas and system engineers in the area of broadcasting and television, microwave and satellite links, radio astronomy and telemetry as well as radar and navigation.

First announcement

### Nato advanced study institute on

### PROCESS AND DEVICE MODELING FOR INTEGRATED CIRCUIT DESIGN

Université Catholique de Louvain  
Louvain-la-Neuve / Belgium  
July 19 to 29, 1977

The course presents, in a systematic and coherently structured way, the fundamental principles and present state of the art of process and device analysis (modeling, characterization and control) for integrated circuit design and fabrication. The correlation existing in bipolar and MOS devices between geometrical, physical, and technological data, as well as the electrical performance data of devices and automatic control of processes and design of integrated circuits will be discussed in detail.

#### TOPICS :

- Physics and chemistry of processing technology
- Physics of semiconductor devices
- Technology characterization and measurements
- Models of bipolar and FET transistors with emphasis on the measurements of their characteristics
- Advanced theories on processing technologies and correlation with device parameters for process and design automation
- Limits of technology.

#### Among the lecturers are :

- H. C. de Graaff (Philips, Eindhoven)
- F. M. Klaassen (Philips, Eindhoven)
- G. Merckel (LETI, Grenoble)
- H. Rupprecht (IBM, East Fishkill, N.Y.)
- D. Scharfetter (Bell Labs, Murray Hill, N.J.)
- W. Schroen (Texas Instruments Inc., Dallas, Texas)
- D. Widmann (Siemens, München)

#### Request for application forms and inquiries to be sent to :

Prof. F. Van de Wiele  
Bâtiment Maxwell  
3, place du Levant  
B - 1348 Louvain-la-Neuve, Belgium

The number of participants will be limited. There is an amount of money available to help defray the travelling and subsistence expenses of the participants. However it is strongly urged that the prospective participants explore outside sources of funding. Accommodation comprising dinner, bed and breakfast is available at the University for the duration of the course.

### New Courses in Technical Writing and Reading Comprehension

"Technically-Write" caters to the specific writing needs of engineers, technologists, and technical managers. A 386-page text book takes the student beyond average language skills or business communications. Assignments range from "requests for spare parts" to progress reports on highly technical projects. They also include how to write reports on investigations and possibility studies.

"Speed Learning" involves speed reading, plus speed-thinking, -understanding, -remembering, and -learning. Thus, it is a course that provides more than ordinary speed-reading studies. Rapid eye movements are not emphasized; better thinking as you read is.

Both courses are available to IEEE members and non-members. For complete details and costs, write to IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854, Attn: Education Department.

### Electromagnetic Compatibility

The second symposium and technical exhibition on electromagnetic compatibility will be held in Montreux from 28 to 30 June 1977. It is co-sponsored by some ten national and international organizations. Symposium organizers are Professor Dr. F. E. Borgnis, Zurich (Symposium Chairman), W. E. Boehm, Montreux (Director, local arrangements), T. Dvorak, Zurich (Secretary General), Professor Dr. F. L. Stumpers, Eindhoven (Scientific Programme Chairman).

Topics: Social and economical impact of EMC; Electromagnetic pollution, control and enforcement; Spectrum economy and management; National and international co-operation in EMC; Immunity of receptors and electronic systems, analogue and digital; Electromagnetic compatibility of electric power, automation and communications; EMC hazards to ordnance and vital safety systems; Compatibility of medical electronics; Biological effects of RF energy; Interference propagation, source-to-receptor coupling; Nuclear Electromagnetic Pulse (NEMP) impact; Regulations, limits, standards and specifications; Measuring methods and instrumentation, production testing; Computers in EMC prediction and analysis; Design of compatible equipment, suppression methods and devices; New techniques—biological transducers, fibre optics, sequency functions. Further information from: Mr. T. Dvorak, Hochfrequenztechnik, 8092 ETH Zurich, Switzerland.

### 1977 International Conference on Crime Countermeasure Science and Engineering

Science and Technology applied to law enforcement, security, and crime prevention is the subject of this conference, to be held at Oxford University, Oxford, England, 26-29 July 1977, and which is jointly sponsored by the Office of Engineering Continuing Education, University of Kentucky; the Institute of Electrical and Electronics Engineers and Oxford University, Oxford, England.

Related papers were solicited which describe recent developments in the following fields.

Police systems; Command, control and communication systems; Alarm devices and systems; Computer systems security; Automatic vehicle monitoring; Automatic identification and authentication of voice, handwriting, fingerprints, and other signatures; Entry control systems; Searching aids—x-ray, sonic, magnetic, microwave; Electromagnetic spectrum conservation; Communication privacy and security including advanced modulation techniques; Pollution detection; Related areas of basic science and novel applications.

This conference will provide a forum for the dissemination of information and exchange of ideas in this specialized area of science and engineering. Conference Proceeding will be published and distributed to each attendee and to selected libraries throughout the world. Further information concerning this conference may be obtained from the International Conference Chairman, George C. Byrne, or the co-editor of the Proceedings, Dennis Shaw.

George C. Byrne, Stanford Research Institute, Menlo Park, California 94025, USA.

Dr. Dennis Shaw, CBE, Keeper of Scientific Books, Radcliffe Science Library, Parks Road, Oxford OX1 3QP, England.

### 7th International Congress on Instrumentation in Aerospace Simulation Facilities

This Congress, to be held at the Royal Military College of Science, Shrivenham, Wiltshire, England, 6, 7 and 8 September, is the Seventh



in a series sponsored by the IEEE for exchange of information about instrumentation developments for all types of aerospace simulation facilities. The 7th Congress will emphasize, but not be limited to, descriptions of recent advances in: Instrumentation of modern aerothermal and aerodynamic facilities; Flow visualization techniques and opto-electronic applications; Digital measurements and novel data processing technology; Ballistics measurements in laboratories and ranges.

For further information write: General Chairman, 7th ICIASF, P. W. W. Fuller, R31 RARDE Fort Halstead, Sevenoaks, Kent, England.

#### **International Conference on Thin-and-Thick-Film Technology**

This Conference is organized by the NTG Committee for "Passive Components and their Material" in co-operation with IEEE in Augsburg, Germany, 28-30 September 1977.

The purpose of the conference is: the presentation of progress in thin-and-thick film technology and discussion of approaches specific to one or common to both technologies.

Subject areas are: substrates; methods for the deposition of films; materials; properties of film components; pattern generation; interconnections; tuning; testing, reliability, packaging; and applications. Papers on related topics will also be considered.

Conference language is English but papers in German may be considered. Authors are invited to submit four copies of a 300-400 word English summary to the Conference Chairman—Prof. Dr. E. Lüder, Universität Stuttgart, Seidenstrasse 36, 7000 Stuttgart 1, Germany—before February 28 1977. Each accepted paper will be included in the Proceedings available at the beginning of the conference.

#### **Radar-77**

The Institution of Electrical Engineers and the Institute of Electrical and Electronics Engineers have agreed to collaborate on future international conferences on Radar. The intention is to hold events at 2½-year intervals, alternately in the UK and USA. RADAR-77 is the first of the series, and is organized by the Electronics Division of the Institution of Electrical Engineers in association with the IEEE Society for Aerospace and Electronic Systems, with the support of the Institute of Mathematics and its Applications, the Institute of Physics and the Institution of Electronic and Radio Engineers. It will be held in London, 25-28 October 1977.

The aims are to provide an international forum for reviewing present and future trends in Primary and Secondary Radar systems and associated components, sub-assemblies and techniques.

The Conference will be held at the Institution of Electrical Engineers, Savoy Place, London, WC2, where further information may be obtained.

#### **Third International Conference on Metering, Apparatus and Tariffs for Electricity Supply**

Organized by the Power Division of the Institution of Electrical Engineers in association with the Organization Internationale de Métrologie Légale and the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section). To be held in London 15-18 November 1977.

The aim of this conference is to review progress both in the UK and abroad and to act as a forum to enable all aspects of electricity supply tariffs, meter engineering, related accountancy and statutory obligations, including international legal metrology, and IEC and EEC problems to be discussed.

The Conference will be held at the Institution of Electrical Engineers, Savoy Place, London, WC2, to which address requests for further information may be sent.

#### **Design and Application of EHV Substations**

The conference in London 22-24 November 1977 is being organized by the Power Division of the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institution of Engineers Australia and the South African Institute of Electrical Engineers.

The conference will review present practice in the planning, design construction and application of EHV substations for ac systems at voltages of 100kV and above, and will identify problems and propose solutions. Future trends in requirements and design of substations and components will be examined. Substation requirements for future UHV networks will be considered. For further information write to the IEE Conference Department, Savoy Place, London WC2.

#### **International Conference on New Developments in Automatic Testing**

Organized by the Control and Automation and Electronics Divisions of the Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), the Institute of Quality Assurance, the Institution of Electronic and Radio Engineers, the Institution of Mechanical Engineers, the Institution of Production Engineers and the Royal Aeronautical Society. To be held in Brighton, England, 30 November to 2 December 1977.

The Conference will be held at the Metropole Convention Centre, Brighton, and further information may be obtained from IEE, Savoy Place, London WC2R 0BL.

## **NEWS OF THE SECTIONS**

### **FINLAND SECTION**

**20 January 1976.** General meeting of the Section. Professor Stubb was elected as new chairman of the Section. Mr. E. Häkkinen gave a speech on the subject: "Auroral Radar." Fourteen members were present.

**2 March 1976.** An excursion to the Vaisala Oy Company. Mr. O. Jägermalm talked on the subject: "The use of the Omega location system in location of radiosonds." 15 members and 8 guests were present.

**12 March 1976.** Executive Committee. It was decided that the Section will participate in the Radio Symposium of the URSI National Committee arranged this autumn. Other Section activities were also discussed.

**8 April 1976.** Technical meeting in co-operation with the Society of Electrical Engineers (SIL-S) at the Museum of Technology in Helsinki. Professor T. Jokinen talked on the subject: "The Development of Electrical Motors" and Mr. K-J Friman from the Strömberg Company about "The use of Power Electronics in Electrical Motors." 32 participants.

**29 April 1976.** Technical meeting at the Datex Oy Company. Dr. T. Suntola gave a speech on the subject: "The use of compound semiconductor films in opto-electronic components." 17 members and 5 guests were present.

**6 May 1976.** Spring excursion to Turku. The Teleste Oy and Wallac Oy Company and the Wihuri Research Institute of the Turku University were visited. Mr. P. Ketonen from the Teleste Oy Company gave a speech on the subject: "Cable Television Systems." Professor V. Hovi talked about the research at the Wihuri Research Institute. 11 members and 11 guests were present.

**18 August 1976.** Executive Committee. Discussion on IEEE Policy and future activities. A new Nominating Committee was formed.

**16 September 1976.** An Excursion to the Loviisa Atomic Plant in co-operation with the Society of Electronics Engineers (EIS). Mr. A. Autio

and Mr. K. Ruoko talked about "The developed systems and the test measurements to be performed at the new 440 MW Atomic Plant." 46 participants.

**21 October 1976.** Technical meeting at the Helsinki Telephone Company. Mr. M. Kyheröinen talked on the subject: "The Radio Telephone Network built by the Helsinki Telephone Company." 8 participants.

**Officers:** Chairman—Prof. T. Stubb; Vice-Chairman—Prof. E. Heikkilä; Treasurer—Mr. I. Hartimo; Secretary—Mr. H. Sandell.

**Membership:** 92 members and 82 student members.

### **NORWAY SECTION**

Under the Speakers Tour Programme the Section arranged a lecture by Dr. L. Nardizzi, Southern Methodist University, Dallas, Texas, on "Digital Image Processing in Biomedical Systems" at a joint meeting with the Norwegian Society for Biomedical Techniques. Attendance: 15 members from each arranger.

The annual three days National Electronics Conference was co-sponsored by the Section, the other sponsors being the national engineering and polytechnic societies. The topics ranged from "Optical transmission in fibres" to "Environmental surveillance." Attendance was 296, of which 17 were IEEE members.

Membership by the end of September 1976 was 113, up by 13 from the same date in 1975.

### **POLAND SECTION**

**Technical Conferences Co-Sponsored by the Section.** The 5th National Conference on Microelectronics in Toruń, 6-7 May 1976. This conference had about 250 participants. The following lectures were presented:—

"Problems of Custom Design of the MOS/LSI Circuits" by Dr. Pierre Rousseau, Société pour l'Etude et la Fabrication de Circuits Intégrés Spéciaux, France; "Linear IC's Applications for Consumer Industry" by Dr. G. Seragnoli, SGS-ATES Componenti Elettronica S.p.a., Italy; "New Developments in Semiconductor Technology" by Dr. Harry



# Computer Networks

The International Journal of Distributed Informatique

## Aims and Scope

COMPUTER NETWORKS is a journal devoted to the publication of material on the broad range of subjects that relate to all forms of **distributed computation and information systems**. Emphasis is given to articles reporting on studies and experience addressing **practical aspects of networking**.

The journal provides a forum for the presentation and discussion of the many social, legal, economic, management, and technical issues involved.

1977; one volume in 6 issues

Library subscription: US \$47.75/Dfl. 112.00

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# Euromicro Newsletter

The International Journal of Microprocessing and Microprogramming

In addition to reports on recent research and technological progress, the Newsletter contains comprehensive surveys, state-of-the-art reports, short communications and announcements pertinent to the micro field. The scope includes theory, design, research, languages, simulation, emulation, teaching aids and evaluation/diagnostic methods relating to microprogramming, microprocessing, microprocessor systems and networks, distributed computing, MSI/LSI components, computer structures, modular systems, integrated hard/software design and micro-architecture of computer systems.

1977; one volume in 4 issues; Price: US \$38.50/Dfl. 100.00

# Computer Methods in Applied Mechanics and Engineering

This journal publishes papers concerned with applications of digital or hybrid computers to problems of applied mechanics and engineering. Papers are of advanced character, containing substantial contributions to these fields and detailing methods as well as results. Refinements of established techniques are published in the form of notes. Papers dealing with techniques of wide applicability, beyond the boundaries of the field in which they were established, are especially emphasized.

1977; 3 volumes in 9 issues; Price: US \$218.00/Dfl. 567.00

# Mathematics and Computers in Simulation

This journal includes papers on mathematical tools in numerical analysis and in systems modelling, and specific applications of simulation in science and engineering. It also includes considerations about computer hardware (digital, analog and hybrid), special software and compilers.

1977; one volume in 4 issues; Price: US \$43.85/Dfl. 114.00

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0412 IEEE Newsletter

Sello, Fairchild Semi-conductors, USA; "Use of the Computer Base Systems for Microcircuit Design" by David W R Orton, RACAL-REDAC Ltd., England.

The Compatibility Symposium in Wroclaw, 22-24 September 1976. The Poland Section of the IEEE co-opted in organizing the International Symposium on Electromagnetic Compatibility. It was successfully held in Wroclaw on 22-24 September 1976 with an attendance of 200 specialists (herein about 50 participants from Western countries). The Symposium was organized with a co-sponsorship of URSI, IEEE-Region 8, CISPR and nine national societies of Electrical/Electronic Engineers. A large total of 97 papers from 13 countries were presented and discussed, covering various aspects of EMC. The results were summarized at a joint meeting of the Symposium Council and the Scientific Programme Committee, with the participation of many professors from ten countries and the President of CISPR. The Symposium will be held every second year alternatively with a parallel EMC Symposium in Montreux (Switzerland).

## Technical Meetings

May 5 1976, in Warsaw. "Research Trends in Electrical Engineering" by Professor M. S. Ghausi, IEEE Fellow, Wayne State University, USA.

May 26 1976, in Warsaw. "New Materials to Surface Acoustic Wave Applications" by Dr. J. F. Vetelino, Associate Professor, University of Maine, USA.

June 4 1976, in Warsaw. "Non-linear Effects in Transistor Amplifiers for Satellite Communications" by Dr. J. Skwirzynski, Marconi Co., Chelmsford, England.

Sept. 27 1976, in Warsaw. "Conversion of the Canadian Telecommunication System to Digital from Analogue" by Dr. D. M. Hinton, IEEE Fellow, Bell Canada.

Oct. 11 1976, in Poznań. "Energy Crisis in the Opinion of the IEEE Power Engineering Society" by Dr. S. Grzybowski, IEEE SM, Poznań Technical University, Poland.

**Visits to Poland.** Dr. Douglas M. Hinton, Past Director of the IEEE Region 7 (Canada), visited Poland in September 1976. He participated in Wroclaw-Compatibility Symposium, and in Warsaw he gave a lecture to the Poland Section and SEP members on the "Conversion of the Canadian Telecommunication System to Digital". He also discussed with SEP the affairs connected with organizing the Poland's Days in Canada, including first Polish Electric Power Symposium planned for Autumn 1977.

**Polish Visits to America.** The Polish delegation consisting of Professor Adam K. Smoliński, Section Chairman, and Professor Andrzej Sowiński, member of the Section's Executive Committee, participated in the IEEE International Convention ELECTRO '76 in Boston, Mass., 11-14 May 1976. During this visit Professor Smolinski had the opportunity to discuss Poland Section's affairs with Mr. Robert Asdal, IEEE Field Services Manager.

After the Convention, Professor Smoliński visited Canada, where he conducted preliminary talks with Dr. D. M. Hinton in Belleville, and Professor W. Janischewskyj in Toronto, on the organization of Poland's Days in Canada.

**Membership.** 31 August 1976—50. Compared with Membership—31 August 1975 (41) there is an increase of about 20%.

## SPAIN SECTION

**Officers.** Chairman: D. Juan Manuel Rebollo; Vice-Chairman: D. Juan Enríquez de Salamanca and D. Felipe Jiménez Asenjo; Secretary: D. Enrique Lucas; Treasurer: D. Hermenegildo Marín.

## Section Activities

Lecture on "Organization, Aims and Activities of the IEEE" (24 March 1976) given by D. Enrique Lucas, Secretary of the IEEE Spanish Section, at the "Escuela Técnica Superior de Ingenieros de Telecomunicación" in Madrid, as part of SATELEC 76 (3rd Session on Telecommunications and Electronics). Attendance: 5 members and 50 guests.

Seminar on "Semi-electronic and Electronic Telephone Switching Systems" (22-29 April and 6-13-20 May 1976). Five lectures were given by D. Julio Linares and D. Isidoro Padilla, Engineers from the Research and Studies Centre of the Spanish National Telephone Company, at the "Escuela Técnica Superior de Ingenieros de Telecomunicación" in Barcelona. The Seminar was jointly sponsored by the IEEE Spanish Section, the "Escuela Técnica Superior de Ingenieros de Telecomunicación" in Barcelona and the Spanish National Telephone Company. Attendance: 30 members and guests (average).

Lecture on "Integration of Techniques and Services in a Digital Tele-



communication Network" (20 May 1976) given by Dr. Eng. Maurizio Decina from SIP (Società Italiana per l'Esercizio Telefónico p.A.). Attendance: 40 members and 35 guests.

Seminar on "Biomedical Engineering" (3 and 4 June 1976). Five contributions were given by Prof. Louis Nardizzi, Southern Methodist University, Institute of Technology, Dallas, Texas; Eng. José Luis Monteagudo, Centro Nacional Especialidades Quirúrgicas Ramón y Cajal, Madrid; Eng. Francisco del Pozo, Centro Nacional de Especialidades Quirúrgicas Ramón y Cajal, Madrid.

Attendance: 25 members and guests.

Visit to the Laboratories of INTA (30 September 1976). A visit was paid to the Laboratories of INTA (Instituto Nacional de Técnica Aeroespacial) near Madrid. Attendance: 25 members and 5 guests.

**Future Activities.** Seminars on "Optical Communications" and "Electronics Switching Systems"; lecture on "Radio-Navigation."

**Membership.** 31 August 1975—287; 31 December 1975—308; 31 August 1976—331.

#### SWITZERLAND SECTION

The Student joint membership agreement between IEEE and the Swiss Electrotechnical Verein has been working satisfactorily for the last three years (despite occasional delays and administrative confusions). A new agreement for the period 1977-1979 has just been signed.

As in previous years, the IEEE Switzerland Section was associated with the "Journées d'Electronique" held in Lausanne on 19-21 October 1976. The subject covered was interactions between Electronics and Micromechanics. Over 30 papers were presented in five different sessions: Survey papers; Systems; Microprocessors controlled mechanics systems; Sensors and Transducers; Motors. 540 participants were registered.

The group "Society and Techniques" founded in 1975, organized two meetings this year. The subjects discussed were: Pollution; Energy savings; Computer data banks; and individual freedom, etc.

Total membership of the Switzerland Section: 655 (99 students).

As in 1975, the IEEE Switzerland Section had a co-operating agreement with the conference MIMI 1976, held in Zurich on 2 to 4 June 1976. However, this co-operation was not satisfactory so the Switzerland Section will not co-operate for the time being in MIMI '77.

#### UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

**Payment of Dues.** The arrangement under which dues could be paid to the Chase Manhattan Bank has now been withdrawn. In future dues may be paid direct to Headquarters in New York by means of a sterling cheque equivalent to the dollar payment required plus 2 per cent.

**Circuits and Systems Chapter.** All members of the CAS Society resident within the UK and Republic of Ireland Section are automatically members of the Chapter, and are entitled to participate in its management. The Chapter committee have nominated Dr. A. C. Davies (The City University, London) as chairman for the 1977 calendar year, and alternative nominations from the membership are invited. No committee nomination has been made for vice-chairman or secretary, and these are also open for nominations.

Nominations must be sent to the address below, to be received by 15 February.

IEEE CAS Chapter, c/o Mrs. P. J. Adams,  
Department of Electrical and Electronic Engineering,  
The City University, London EC1V 4PB.

Any nomination should include an agreement from the person nominated to serve if elected.

If more than one nomination is received for any office, an election by ballot of the chapter membership will be held.

#### London Meeting

A talk entitled "Microprocessor Update" will be given at The City University (Room U215), St. John Street, London, EC1, on Tuesday,

22 February 1977, at 5.30 p.m. (Free tea and biscuits will be provided for visitors from 5 p.m.). This talk will be given by Daniel R. McGlynn of the United States Philips Corporation and will cover a survey and comparison of new microprocessors and projection of future trends and applications.

In case of alteration to the date of Mr. McGlynn's visit to England, it is suggested that the date and time of the meeting be confirmed by telephoning Dr. A. C. Davies (01-253 4399, Ext. 425 or 431) prior to attending.

#### Professional Communication Chapter

On Wednesday, 9 February 1977 at 5.30 for 6.00 p.m., a meeting will be held at Kings College, Strand, London, when Mr. D. H. Barlow, Director of INSPEC will speak on "Innovation in Information Techniques." Study of the means of disseminating the growing mass of information is becoming increasingly important to all engineers and it is hoped that as many IEEE Members as possible, together with Students and Guests, will attend this important meeting.

**Edinburgh Colloquium.** The Chapter is taking part in a one-day Colloquium on "The Challenge of Communication" to be held at King's Buildings, University of Edinburgh, on 2 March 1977. The Colloquium is being held in conjunction with the Science, Education and Management Section of the IEE Scottish Centre who are carrying out the detailed organization.

The programme includes presentations from Prof. Sir Hugh Robson, Vice-Chancellor, University of Edinburgh; Prof. A. Thompson, Department of Economics, Heriot-Watt University; Dr. A. A. L. Reid, Deputy Director, Systems Strategy Department, Long Range Studies Division, Post Office; Bernard Slamin, Chief Engineer, BBC Scotland; Lindsay-Smith, Editor, Glasgow Herald; T. M. Howie, Principal, Paisley College of Technology; John Hutton, Development Officer, N.E. Scotland Development Authority; David Percy, Member of Council, CBI, Scotland; Christopher Lucas, Managing Director, Radio Forth.

Opening address 10.00 (coffee at 9.30) and close at 17.30. Fees: Member of co-sponsoring body £4.00; non-member £5.00; retired members and students £2.00. Copy of Colloquium papers (to be published after Colloquium) £2.00. Further details and registration forms may be obtained from: R. McMurtrie, Hon. Sec. SEM Section, IEE Scottish Centre, 55 Riscarton Mains Road, Currie, Midlothian, EH14 5NF.

#### General News

Mr. A. P. Cable has been obliged, for business reasons, to give up the position of Chairman of the Membership Committee after giving the Section excellent service for a number of years. Professor D. R. Wilson, Polytechnic of Central London, has agreed to take over. The Section Annual General Meeting will be held in the Institution of Electrical Engineers building, Savoy Place, London, WC2, on Tuesday, 15 March 1977, at 6 p.m. (tea at 5.30 p.m.). After the meeting there will be a discussion meeting introduced by Mr. F. J. Lane on whether the principle of accepting the lowest tender gives the customer the best buy. Mr. Lane recently received the IEEE Habirshaw Award for his international leadership in high-voltage transmission. Light refreshments will be served when his talk is over.

Are you prepared to organize a short course which could be given at different localities in the UK, and possibly also in other IEEE Sections? If so, please get in touch with the Assistant Secretary, Dr. A. C. Davies, Department of Electrical and Electronic Engineering, The City University, St. John Street, London, EC1V 4PB. The Section Committee will consider providing a measure of financial support to approved courses.

The Chairman is always pleased to hear from members who are prepared to help with the work of the Section. Would anyone interested write to Mr. R. C. Winton, 224 Creighton Avenue, London, N2 9BD.

#### ADVERTISING AND INSERTS

Enquiries to County Secretarial Services, P.O. Box 7, Guildford, Surrey, England GU2 5HH. Telephone 0483 77777. Telex 264045. Cable address Cossec Guildford. Delivery address 8 The Flower Walk, Guildford. Deadline dates in box on front page.

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