

IEEE Region 8 newsletter



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
INCORPORATED

Editor: Mr. W. H. Devenish, ERA Technology Ltd., Cleeve Road, Leatherhead,
Surrey, England KT22 7SA.
Tel. Leatherhead 74151

Telex 264045 ERALHD G

NEXT ISSUE - AUGUST
COPY DEADLINE - JULY 7

Regional Director: **D. C. J. Poortvliet**
TNO Research Unit, Westeinde Hospital, EEG Dept.,
Lijnbaan 32, 2512 VA The Hague, The Netherlands.

No. 50

MAY 1980

REPORT OF THE REGIONAL DIRECTOR



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

This is the Fiftieth Newsletter. Something to be proud of. Professor R. C. G. Williams established the Region 8 Newsletter and ever since then he has devoted a great deal of his time and effort to every issue. Congratulations and many thanks Prof. Williams.

On January 21 I visited Copenhagen to attend a Conference Steering Committee (CSC) meeting to discuss EUROCON 82. It was decided that EUROCON 82 will take place in Copenhagen using the facilities of the Danish University of Technology (DTH). The main theme of the conference will be "Reliability in Electrical and Electronic Components and Systems". On January 31 I attended the

first meeting of the Austria Section in Vienna. Prof. Kurt Richtér from the University of Graz chaired the meeting and will act as Section Chairman until the Section is ready to organise elections. I wish the new Section all the best.

In the last Newsletter I mentioned that the Region 8 Committee nominated two candidates for the office of the 1981/1982 Regional Director. Since both candidates accepted the nomination, I am happy to announce that Prof. Proebster (German Section Chairman) and Prof. Protonotarios (Greece Section Chairman) are the candidates. I wish them both a successful election and I sincerely hope that many Region 8 members will actually vote.

In February I attended meetings in Houston of the Ad Hoc Committee of the International Activities, the Regional Activities Board (RAB), the Long Range Planning Committee (LPRC) and the Board of Directors.

In the Ad Hoc Committee the position of the non-US Regions with respect to the National Societies in their respective areas was extensively discussed. It was felt that in order to achieve a better and clearer co-operation with the National Societies it might be necessary to give the non-US Regions more freedom to act. The members of the Committee are: D. C. J. Poortvliet (Region 8 Chairman), P. A. Rusche (Region 4 Secretary), T. A. Estrin (Division VI), H. C. Cherney (Region 1), J. J. Archambault (Region 7), O. C. Fernandez (Region 9) and S. Y. King (Region 10). The RAB passed a Region 8 motion to revise Bylaw 404.3. This revision will authorise Region 7 through Region 10 to take special actions in the dissolution of Sections.

The difficult financial situation of the Region 8 Committee was discussed in the RAB as well. The request of the Region 8 Committee to establish an assessment for members (excluding students) was approved and referred back to the Region 8 Committee for further consideration. The implications of this decision will be discussed in the August issue of the Region 8 Newsletter.

The Board of Directors appointed the members of the Nominations and Appointments Committee and nominated Richard W. Damon as the

Board candidate for the office of 1981 IEEE President. Robert W. Lucky was nominated at the Board candidate for the office of 1981 IEEE Executive Vice-President. Statements of these candidates and possible petition candidates will be published in the next Newsletter. After the Houston meetings I visited Paris and met the President (M. Malegarie) and the General Secretary (General Bertrand) of the French National Society SEE. The draft of a possible agreement between SEE and IEEE was discussed.

During EUROCON 80 I had many preliminary discussions about EUROCON 82 and I attended a lunch meeting of the Germany Section, where I could exchange views with some Section members.

EUROCON 80 has been a very successful conference. From this place I want to thank all people involved for their tremendous efforts to make this conference as it was. Again a successful result of a close co-operation between EUREL and IEEE Region 8.

After EUROCON on March 29, the Executive Committees of EUREL and IEEE met in Friedrichsruhe. Some Agenda items were:

- EUROCON finances;
- EUROCON 82;
- Agreement between IEEE and EUREL;
- The establishment of permanent joint committees to study mutual points of interest such as energy and allocation of radio frequencies.

I think this meeting contributed much to the better understanding between EUREL and IEEE.

The Region 8 Committee meeting took place in Friedrichsruhe on March 29 and 30. The meeting was lengthy and rather difficult because some important decisions had to be taken, e.g.:

- Region 8 finances;
- EUROCON 82 representatives to the Steering and Programme Committees;
- Mediterranean Electrotechnical Conference, MELECON 81.

The Region 8 Committee appointed the following Region 8 representatives to the EUROCON 82 Conference Steering Committee (CSC): Prof. Proebster (Vice-Chairman), Prof. Becker (Programme Committee Chairman), Mr. Russell (Secretary), Dr. Baal Schem (Exhibitions), Prof. Bolinder and the Regional Director. The CSC Chairman is Mr. Lauger from Denmark appointed by EUREL.

The Region 8 Committee approved unanimously MELECON 81 to be held in Tel Aviv, Israel, on May 24-28, 1981, and appointed the following persons to the CSC: Dr. Baal Schem (Chairman), Region 8 Director (Vice-Chairman), Prof. Protonotarios (Programme Committee Chairman), Prof. Bernardi (Italy), Prof. Chivaleri (Italy), Prof. Proebster (Germany), Mr. Winton (Publicity). Representatives of other Mediterranean countries such as Egypt, Yugoslavia and Spain will hopefully be added in the near future. The draft programme was made during EUROCON 80 and will be worked out further together with the budget during my present stay in Israel.

DICK C. J. POORTVLIET
Tel Aviv, Israel

April 2, 1980

EUROCON 80 and 82

Report by Robert C. Winton

To compress the 4cm thick Proceedings of EUROCON 80 - From Electronics to Microelectronics - into a report which would fit into this

	PUBLISHED QUARTERLY	FEB	MAY	AUG	NOV
DEADLINES	News to Editor	Jan 7	April 7	July 7	Oct 7
	Advertisements to County Secretarial Services	Jan 15	April 15	July 15	Oct 15
	Delivery inserts to County Secretarial Services	Jan 22	April 22	July 22	Oct 22

Newsletter would be a miracle which not even microelectronics can achieve. This report is therefore confined to a few highlights from some of the opening keynote speakers who dealt with future development possibilities, since it is these future possibilities which determine the role which microelectronics will play in every field.

In his address on "Microelectronics in Data Processing and Telecommunications", Mr. B. O. Evans, Vice-President of IBM, USA, made a number of forecasts. During the next ten years, progress in computers will be determined by the progress in semi-conductor and magnetics technologies; the trend towards more chip layers will be slowed by increasing costs and lower yields; circuits with one micron dimensions

will be in mass production in the second half of the 1980s; sub-micron dimensions may be achieved by the 1990s by non-optical techniques; 256 k memory chips can be foreseen in the early 1980s and 1M memory chips by the mid-1980s; microcomputers with 32-bit words will appear soon; within ten years microcomputers will achieve the same performance as all but the largest of today's machines.



At the opening of the EUROCON Technical Exhibition (left to right): Mr. Kistner, Ministerial Direktor, State of Baden Wurttemberg; Prof. Proebster; Prof. Kaiser; Dr. Weng, State Secretary, Baden Wurttemberg; Mr. Lindner, Chairman of the Technical Exhibition Committee.

Mr. Evans went on to forecast a rapid increase in decentralised data processing systems, which will enable a wider range of remote users to use data processing under their own control. This will lead to a big increase in the number of computer modems in use, from 400,000 units at the end of 1978 to an estimated 1.2M or more by the end of 1983. Remote intelligence plus new microprocessors will reduce the demand for communications but this reduction will be much more than equalled by factors calling for increased communications. Fibre optics will play a major part in meeting this increase, and on present estimates will become cheaper than copper from 1981 onwards.

Within ten years, said Mr. Evans, every home will contain at least one computer, and many activities will centre on the domestic television receiver. This possibility was also mentioned by Dr. G. Lorenz, Member of the Board of Philips, Germany, in presenting his paper "The Impact of Microelectronics on Consumer Products and Medical Systems". He foresaw the television receiver performing nine different functions in its role as a home information centre, including acting as a terminal for a home computer and for teletext and viewdata, and as a display unit for home movies and for video players. Microelectronics, said Dr. Lorenz, will replace mechanical parts in consumer products, and this will lead to decreased cost, size, and weight, and to increased quality, longer product life, and higher operating speeds. In addition, microelectronics will be a source of innovation, and he referred to microelectronics controlled car radio which can search for the strongest signal from among stations transmitting the same programme, and to traffic control through the automatic reception of information and by direct communication between vehicles and a traffic computer system.

In his paper "VLSI Technology - A User-Oriented Perspective", which he was unfortunately unable to present in person, Sir Robert Clayton, Technical Director, General Electric Company, UK, referred to key areas needing attention: the move to a one-micron line width may be hindered by new sources of defects, by new reliability problems, by a high ratio of test cost to chip cost, and by physical limitations such as electro-migration and alpha particle susceptibility. Among other areas needing attention during the 1980s are the ratio between design and manufacturing costs for VLSI; the best ways of exploiting VLSI technology; and the need for the "testability" of VLSI to receive greater consideration in the specification and during design.

Unusually for a technical conference, social effects received considerable attention. Dr. P. Aigrain, Secretary of State for Research to the Prime Minister of France, presented a paper "The Impact of Microelectronics on society", and forecast that microelectronics will have a greater impact than we now believe. It will lead to new production methods, new management methods, new solutions to problems, and to a new pattern of life and leisure. Microelectronics creates fear, said Dr. Aigrain, because people do not understand its significance, and

electronics engineers have a role to play in providing information about the nature of what he called this "technological mutation". The social impact was also mentioned at the Press conferences and by a number of other speakers, and there was a panel discussion on the subject.

With the words, "EUROCON 80 is hereby opened", Prof. Walter Proebster, Chairman of the Steering Committee, brought to fruition the work of very many people who had produced a Conference with around 1,000 participants from 42 countries, at which over 180 papers from 21 countries were presented, thanks to the work of the Technical Programme Committee chaired by Prof. W. A. Kaiser. All those to whom your correspondent spoke agreed that the organisation was outstanding, that nothing had been overlooked, and that everything operated smoothly. As Dr. Leo Young, President of IEEE, remarked, truly EUROCON is no longer a child but has become grown up, and every member of IEEE can feel proud of what our Institute has brought to the European scene.

A final note on EUROCON 80 - the Proceedings are available from the North-Holland Publishing Co., PO Box 211, 1000 AE, Amsterdam, The Netherlands, price US \$70.75.

So now EUROCON 80 is dead - but long live EUROCON 82. Yes - EUROCON 82!

Such has been the success of EUROCONs that IEEE Region 8 and EUREL have agreed that EUROCON should be held in 1982 and 1984, that is to say with an interval of only two years instead of the three-year interval between previous EUROCONs. One major advantage is that each EUROCON Steering Committee can hand over to the next; with a three-year interval each committee has to start all over again.

The hand-over started at a meeting in the Danish Engineers' Post-Graduate Institute in Copenhagen on January 21, between Region 8 and EUREL representatives, and further contacts have been made since then. The following decisions were made: (a) The Steering Committee should continue to be composed of five members representing EUREL and five members representing Region 8; (b) The EUROCON 82 Steering Committee will include: Chairman, Mr. E. Lauger (EUREL); Vice-Chairman, Prof. W. E. Proebster (Region 8); Members, General V. Bertrand or Mr. Jean Herry (EUREL); Prof. E. F. Bolinder (Region 8); Prof. P. Dietrich (EUREL); Mr. D. C. J. Poortvliet (Region 8); Mr. C. R. Russell (Region 8); Dr. P. W. Becker (Chairman of the Technical Programme Committee, Region 8). Additional members remain to be appointed.

Later News: At the Region 8 Committee meeting in Stuttgart on March 30 it was decided to propose that the representation from Region 8 be increased from five to six and to nominate Dr. J. Baal Schem as the additional member.

The title of EUROCON 82 will be: "Reliability in Electrical and Electronics Components and Systems - Hardware, Software, Economics". EUROCON 82 will be held at the Technical University of Denmark, Copenhagen, from Monday June 14 through Friday June 18 1982.

For further information as it becomes available, write to the EUROCON 82 Conference Office, Danish Engineers' Post-Graduate Institute, The Technical University of Denmark, Building 208, DK-2800 Lyngby, Denmark.



Prof. Proebster (left), Chairman of the EUROCON 80 Steering Committee, and Mr. E. Lauger, Chairman of the EUROCON 82 Steering Committee, at the EUROCON 82 stand at EUROCON 80.

INSTITUTE NEWS

New IEEE Fellows

In 1979, from Region 8 there were 20 nominations for the Fellow Grade from which nine were elected. Considering that the figure for the total nominees was 273 and the figure for the total elected was 128, the percentage for both nominated and elected from Region 8 is 7%. This percentage is good if we consider that the per cent membership of Region 8 with respect to total membership of IEEE is only 4%. However, Region 8 can do even better than this given its potential. For this purpose the Region 8 Sections should make an effort to encourage

potential nominators to submit more nominations. No doubt that more Fellows in Region 8 will enhance its prestige while it will give due satisfaction to those members who excel by the recognition of their work and achievements in the fields mentioned in the Bylaws.

The names of the new Fellows in Region 8 and their citations appear on page 3. The new Fellows will select the events at which their certificates will be presented. The conference organisers, sections, societies, or other units of the Institute designated to honour each new Fellow will be furnished with the certificates.

BENELUX: Anton E. Pannenburg. For leadership in the management of research and development. **Jan C. Willems.** For contributions to the theory of dynamical systems.

GERMANY (West): Walter L. Engl. For outstanding contributions in integrated circuits design techniques and device modelling. **Wolfgang A. Kaiser.** For contributions to advanced communication systems.

ISRAEL: Israel Bar-David. For contributions to detection theory as applied to optical communications.

UNITED KINGDOM and REPUBLIC OF IRELAND: Jeffrey H. Collins. For contributions to the field of magnetic and surface acoustic wave delay line technology, and to engineering education. **John D. Rhodes.** For contributions to circuit theory, particularly distributed and multi-variable filter networks. **Alan B. Wood.** For leadership in the design of high-voltage transmission lines.

J. A. TEGOPOULOS, Region 8 Fellows Committee

Technical Activities Guide

The Technical Activities Board has introduced a new administration publication entitled "IEEE Technical Activities Guide" which features a five-year cross-indexed schedule of over 100 important IEEE conferences, listing dates, locations, sponsors, information contacts, and publication plans.

The guide will incorporate the former IEEE Master Conference Schedule and contains information on future IEEE periodicals, special issues, and IEEE Press Book proposals and approvals.

The Technical Activities Guide will also include descriptions of newly published special issues, conference records, and other IEEE publications.

A quarterly publication, the first issue of the guide was available in January. A subscription to the Technical Activities Guide will cost \$3 for IEEE members and \$20 for non-members. For more information, contact the Piscataway Service Centre.

MEETINGS IN REGION 8

Radar Technology Course

Sponsored by the Benelux Section IEEE and the Eindhoven University of Technology, a two-day course in radar technology is scheduled for August 26 and 27 1980 at Eindhoven University, The Netherlands.

Subjects will include the fundamentals of radar, signal processing, solid state, tubes, tracking and smoothing, and detection. The lecturer is Dr. Eli Brookner, consulting scientist at Raytheon. The fees are Dfl. 295.00 (Dutch guilders). They include a text, *Radar Technology*, by Dr. Eli Brookner, plus supplemental notes.

Further information from: Dr. Eduard J. Maanders, Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, The Netherlands. Telephone: 040-473427; 040-473447; or 040-473417. Telex: 51163 thehv nl.

Third International Conference on Future Energy Concepts

The conference is organised by the Institution of Electrical Engineers in association with the British Wind Energy Association, Institute of Electrical and Electronics Engineers (United Kingdom and Republic of Ireland Section), Institute of Energy, Institute of Marine Engineers, Institute of Mathematics and its Applications, Institute of Physics, Institution of Chemical Engineers, Institution of Civil Engineers, Institution of Gas Engineers, Institution of Mechanical Engineers, International Solar Energy Society (UK Section), Royal Aeronautical Society and the Society of Chemical Industry. It will be held in London, January 27-29 1981.

This conference will again bring together those active in diverse fields covering Future Energy Concepts to discuss progress, present engineering and scientific aspects, mutual problems and make realistic comparisons between traditional and alternative concepts. Time will be given to matters of environmental impact, conservation and policy. The primary emphasis will be on engineering aspects related to science and applications of new and developing concepts such as: Solar energy; Wind energy; Sea energy. Geothermal; Chemical; Energy conversion; Storage and transmission; Systems and economics. Recent developments in the status of conventional concepts will be provided by appropriate invited lectures.

Further information from: IEE Conference Department, Savoy Place, London WC2B 0BL, UK.

4th Symposium and Technical Exhibition on Electromagnetic Compatibility

Region 8 and the IEEE Professional Group on EMC are among the many international bodies co-sponsoring this Symposium. It will be held in Zurich March 10-12 1981 with the following 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 electronic systems; Electromagnetic compatibility of communications, electric power and automation; 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; Regulation, limits, standards and specification; Measuring methods and instrumentation, production testing; Computers in EMC prediction and analysis; Design of compatible equipment, suppression methods and devices; Special techniques - sequency functions, spread-spectrum, fibre optics.

Further information from: Dr. T. Dvorak, ETH Zentrum-KT, 8092 Zurich, Switzerland. Phone: (01) 326211, ext. 2790; telex: 53178 eth bi.

Second International Conference on Telecommunications Transmission

The Institution of Electrical Engineers in association with the Institute of Electrical and Electronics Engineers Inc. (United Kingdom and Republic of Ireland Section), the Institute of Mathematics and its Applications, the Institute of Physics and the Institution of Electronic and Radio Engineers are organising this conference, with the support of

the Convention of National Societies of Electrical Engineers of Western Europe (EUREL). It will be held in London, March 17-20 1981.

The aim of the conference is to examine the current status of developments in the field of telecommunication transmission, emphasising a system view rather than a component view of transmission systems, and to discuss future trends. It is intended that the topics in the programme will cover new types of transmission systems, studies for future systems and their place in telecommunication networks including experience of field trials on newly established systems.

Contributions are invited on the following topics in particular: Low and high capacity analogue systems; Low and high capacity digital systems; Microwave radio-relay systems including tropospheric-scatter systems; Impact of optical fibre systems; Transmission of television and music signals; Multiple service local area systems; Digital and other subscriber carrier systems; Analogue/Digital interfacing equipment; Multiplexing equipment; Network planning and performance; Network management; Impact of switching, signalling and data techniques on transmission systems. The following topics will be excluded from the programme except insofar as they bear on those mentioned above: Satellite systems, Submarine cable systems; Data networks; Mobile systems. A number of review papers will be arranged by the Committee. Consideration is being given to offering authors of accepted contributions, facilities for a small technical display of equipment, photographs, etc., to support the theme of their papers.

EINDHOVEN UNIVERSITY, NETHERLANDS

RADAR TECHNOLOGY COURSE

Sponsored by the Benelux Section IEEE and the Eindhoven University of Technology, a two-day course in radar technology is scheduled for August 26 and 27, 1980, at Eindhoven University, Netherlands.

Subjects will include the fundamentals of radar, signal processing, solid state, tubes, tracking and smoothing, and detection.

The lecturer is Dr. Eli Brookner, consulting scientist at Raytheon, Wayland, Massachusetts, USA.

The fees are Dfl. 295.00 (Dutch guilders) and will include a text, *Radar Technology*, by Dr. Eli Brookner, plus supplemental notes.

For further information contact:

Dr. Eduard J. Maanders

Department of Electrical Engineering

Eindhoven University of Technology

Eindhoven, Netherlands

Telephone: 040 - 473427, 040 - 473447 or 040 - 473417

Telex: 51163 thehv nl

Those intending to offer a contribution should submit an A4 page synopsis to the Conference Department on or before May 12 1980, together with a brief description of any display which may support the contribution. Further information from: IEE Conference Department, Savoy Place, London WC2R 0BL, UK.

Fifth International Conference on Digital Satellite Communications

The International Telecommunications Satellite Organisation (INTELSAT) and Telespazio S.p.A. have announced plans to co-sponsor the Fifth International Conference on Digital Satellite Communications, scheduled to be held in Genoa, Italy, from March 23-26 1981. The conference will also receive organisational and staff support from Istituto Internazionale delle Comunicazioni (IIC), Associazione Elettrotecnica ed Elettronica Italiana (AEI) and Region 8 of the Institute of Electrical and Electronics Engineers (IEEE).

INTELSAT is the 102 member-country organisation that owns and operates the telecommunications satellites used by countries around the world for international communications, and by a number of countries, for domestic communications.

A Steering Committee, chaired by Mr. G. Salvatori of Telespazio S.p.A., and a Technical Programme Committee, co-chaired by Mr. N. K. M. Chitre of INTELSAT and Mr. G. Quaglione of Telespazio, have been formed to plan the Fifth Conference in detail. The Steering Committee will be supported by an Administrative Office, divided between the Rome Branch Office and the Genoa Branch Office. The conference will address all technological and system aspects of digital communications via satellite. Emphasis will be placed on transmission considerations, integration with terrestrial networks and new service applications.

Requests for additional information concerning the conference should be addressed to: The Manager of the Rome Branch of the Administrative Office, the Fifth International Conference on Digital Satellite Communications, Telespazio S.p.A., Corso d'Italia, 43, 00198 - Rome, Italy. Telex: 610654/611596.

Conference on Digital Processing of Signals in Communications

This conference is organised by the Institution of Electronic and Radio Engineers with the Institution of Electrical Engineers and the Institute of Electrical and Electronics Engineers. It will be held at the University

of Technology, Loughborough, Leicestershire, UK, Monday 6 to Friday 10 April 1981.

Preference will be given to papers describing original work, new systems, or new applications but papers on practical aspects of communications systems would also be welcome. For guidance a non-exclusive range of subjects is offered: Antenna array signalling processing; Coding techniques for TV transmission; Computer processing of images; Control of distributed processing; Digital filters in communication; Digital processing of speech and music signals; Digital studio techniques; Echo cancellation; Economics of signal processing; Error detection and correction; High speed modems; Noise reduction techniques; Programmable processing; Signal design; Simulation of communications systems; Spread spectrum techniques; Telemetry; Underwater acoustic communications; Use of computer array processors. Synopses of not more than 300 words should be submitted as soon as possible but not later than June 1 1980.

Further information from: Conference Secretariat, Institution of Electronic and Radio Engineers, 99 Gower Street, London WC1E 6AZ.

MELECON 81

The First Mediterranean Electrotechnics Conference, MELECON 81, will be held in Tel Aviv, Israel, May 24-28 1981. The theme is Electrotechnics for Development, and the scope of the conference will include: Telecommunication systems and services; Solar energy and wind power systems; Microprocessor and computer applications; Electronics and the environment; Technology transfer and socioeconomic impacts. Papers are now invited. Three copies of a 500-word abstract should reach MELECON 81 Secretariat, Israel Section IEEE, POB 3473, Tel Aviv, Israel, not later than October 31 1980; authors of accepted papers will be notified not later than January 31 1981. Full papers must be received by March 31 1981.

MELECON 81 is jointly sponsored by IEEE Region 8, the National Association of Engineers and Architects in Israel, the Associazione Elettrotecnica ed Elettronica Italiana, and other national associations of electrical and electronic engineers.

MELECON 81 will include special arrangements for students, visits to companies, a technical exhibition, and a social programme. For further information as it becomes available, please write to the Secretariat (address above).

NEWS OF THE SECTIONS

FINLAND SECTION

The aim of IEEE Finland Section is to form an open window to the world for electrical engineers in Finland. The activities during 1979 have been carried out mainly in co-operation with the Association of Electronics Engineers in Finland.

Membership. On January 1 1980, there were 115 members (5 SM + 103 M + 7 A) and 127 student members in the Section. During 1979 the membership increased by 20%, which is a satisfactory result. About 60% of the members live in the Helsinki region, the rest coming from all over the country. There are student branches in Helsinki, Tampere and Oulu.

Meetings. During 1979 the Section has co-operated with other Finnish electrical engineering societies in organising two conferences: The Electrical Engineering Convention on March 23 1979 with 160 participants, and The Convention on Electro-Technology on November 7-8 1979 with 255 participants. Three technical meetings were held, the typical programme being a talk by an invited lecturer. One meeting was connected with industry and university talks. Considering the small number of members, the activities have been satisfactory.

Activities during 1980. At the annual meeting on January 24 1980, the following Executive Committee was elected: Section Chairman, Johan Tallqvist; Section Secretary, Henrik Stubbs; Section Treasurer, Iiro Hartimo; Section Vice-Chairman, Jarl Jaatinen.

The 1979 Committee was thus re-elected, except for the Secretary. The new Committee decided to arrange three meetings during the first half-year. At one of these Dr. Christian Jacobaeus from Sweden will give a talk entitled "Traffic Theory - Application in Industry and Administration". Members from other engineering associations will be invited to this meeting.

GERMANY SECTION

At its meeting on January 7 1980, the Executive Committee of the German Section discussed additional means of attracting new student members. Up to 30 student "fellowships" have been set up, which pay IEEE student membership dues and fees for one professional Society/Group of the student's choice for a period of two years. Hence the student will receive "Spectrum" and "Transactions" entirely free, along with the other benefits of IEEE. Qualified students should be suggested by their Professor or Institution. Please contact Prof. G. Kohn or Dipl.-Ing. H. May, both University of Stuttgart, Fachbereich Elektrische Nachrichtentechnik, 7000 Stuttgart, Breitscheidstrasse 2.

It was also decided to adapt the election procedure of the German Executive Committee to that used in other countries of Region 8.

Starting this year, ballots will be simplified to three offices: Chairman, Vice-Chairman and Treasurer. Other committee members may then be appointed by the elected officers later.

Membership increased by more than 90 to about 700. A new membership roster has been prepared in New York and mailed to individual members.

GREECE SECTION

The lecture activities of the Greece Section October 1979-March 1980 are as follows:

"Safety estimation of electrical power systems" by Dr. G. Kontaxis, National Technical University, Athens, Greece, October 31 1979, attendance 40 (30 IEEE members).

"Organisation and development of information systems" by N. Roussopoulos, Assistant Professor, University of Texas, Austin, November 21 1979, attendance 110 (50 IEEE members).

"Game theory applications to ecological systems equilibrium problems" by Prof. J. Nicolis, University of Patras, Greece, November 23 1979, attendance 60 (40 IEEE members).

"Active filters - a survey" by Prof. Th. Deligiannis, University of Patras, Greece, November 30 1979, attendance 40 (25 IEEE members).

"Arrangements of electric power substation within cities" by A. Labropoulos, Public Power Corporation, Athens, Greece, December 19 1979, attendance 40 (25 IEEE members).

"Frontiers of computer science" by Prof. N. V. Findler, State University of New York, Buffalo, January 7 1980, attendance 70 (40 IEEE members).

"Two-dimensional digital filters and applications" by Prof. A. Venetsanopoulos, University of Toronto, Canada, February 22 1980, attendance 65 (50 IEEE members).

"Detection of signals in noise (applications to undersea communications)" by Prof. A. Venetsanopoulos, University of Toronto, Canada, March 6 1980, attendance 80 (50 IEEE members).

"System design with microprocessors" by Prof. G. Papadopoulos, University of Patras, Greece, March 21 1980, attendance 70 (50 IEEE members).

"The interface between automata theory and computational complexity" by I. H. Sudborough, Associate Professor, Northwestern University, Evanston, Illinois, March 26 1980.

ISRAEL SECTION

Membership. As of February 29 1980, the Israel Section has 410 members (including 64 students). Two senior members have been elected to Fellowship: Prof. I. Bar-David and Prof. J. Katzenelson. This

has brought the number of Fellows in the Section to 13 (including two Life Fellows).

Ollendorf Celebration. On the occasion of the 80th birthday of Prof. Franz Ollendorf, Fellow of IEEE and the first Chairman of the Israel Section, a one-day Seminar on Electromagnetic Theory has been held at the Technion, Haifa.

The Seminar was sponsored jointly by the Technion and the Israel Section of the IEEE, with the generous assistance of IEEE Headquarters. The first lecture was delivered by Prof. Ollendorf himself and dealt with an attempt to use the "Lorentz transformation in sound problems of moving bodies". The invited lecturers were: Prof. H. A. Haus of MIT and Prof. T. Tamir of the Polytechnic Institute of New York. A final lecture was given by Prof. Schiber of the Technion. At a reception, chaired by the President of the Technion, General (R) A. Horev, the Chairman of the Israel Section of the IEEE Dr. J. Baal Schem congratulated Prof. Ollendorf on behalf of the IEEE President, Dr. L. Young, who was unable to attend the celebration, and presented a Commemorative Certificate to Prof. Ollendorf on the occasion of the 25th anniversary of the Section. About 100 persons, most of them Fellows and Members of IEEE, participated at the Seminar and at the reception.



Presentation of Commemorative Certificate to Prof. Ollendorf, the first Chairman of the Israel Section of IEEE at the occasion of the 25th anniversary of the Section. From left to right: Prof. Kohari, Dean of the Faculty of Electrical Engineering at the Technion, Haifa; Gen. (ret.) Hozev, President of the Technion; Prof. Ollendorf; Dr. J. Baal-Schem, Chairman of Israel Section of IEEE; Prof. Bar-lev, former Dean of the Faculty of Electrical Engineering.

Continuing Education. Mr. David Morris has been elected Chairman of the Continuing Education Committee of the Israel Section. The main events planned for the next months are: A two-day Seminar on "the office of the future" to be held by three lecturers from the USA and Canada at the end of May; The bi-annual meeting of the MTT/AP Chapter, to be held in October 1980.

Student Counsellors. All three student branches have new Student Counsellors: Prof. E. Zeheb has replaced Prof. Klein as Technion Branch Counsellor; Dr. U. Shoked has replaced Dr. Uhr as Tel Aviv University Branch Counsellor; Prof. D. Tabak is the Counsellor at the New Ben Gurion University Student Branch.

Mediterranean Electrotechnics Conference. A proposal for holding the Conference in May 1981 in Tel Aviv was submitted to the Regional Committee. See Meetings in Region 8 for details.

MIDDLE AND SOUTH ITALY SECTION

The membership of the Section rose from October 1978 to October 1979 by 27%.

Student Activities. Promotion of student membership has produced a gain of 95.2% from October 1978 to October 1979. General meetings of the Student Branch at the University of Rome have been held on June 26, October 1 and October 29. The Student Branch activities for the new academic year have been planned during these meetings. Moreover, the following student members have been elected to the positions of Branch officers for the period November 1978 to October 1980: Claudio Del Mastro, Chairman; Giovanni Di Agostino, Vice-Chairman; Guiseppe Miccoli, Secretary.

NORTH ITALY SECTION

The following list shows the names of the new Section officers for the period May 1979 to April 1981: Chairman, Prof. Pier Paolo Civalleri, c/o IENGF, Corso Masimo D'Azeglio 42, 10125 Torino, Italy; Vice-Chairman, Prof. Gianni Fabri, c/o SIT-Siemens, Via Alessio de Tocqueville 13, 20154 Milano, Italy; Secretary/Treasurer, Ing. Angelo Luvison, c/o CSELT, Via Reiss Romoli 274, 10148 Torino, Italy.

The agreement with the National Society, that is AEI, is very effective. Within this framework almost weekly lectures of interest for IEEE members are sponsored jointly by IEEE North Italy Section and AEI Sections of Milano and Torino.

The North Italy Section is co-sponsoring the Third National Meeting on Applied Electromagnetic Field to be held in Bari on June 25-27 1980. The first and second meetings were held at L'Aquila and Bari in 1976 and 1978 respectively. Both of these conferences were very successful and gave scientists and engineers an opportunity to discuss the rapid progress in the field mentioned above. Please address correspondence to: Comitato Organizzatore Terza Riunione Nazionale de Elettromagnetismo Applicato, Istituto Elettrotecnico-Facolta de Ingegneria, Via Re David, 200-70125 Bari. Tel: (080) 228040.

POLAND SECTION

Agreement between SEP and IEEE. At the end of 1979, the agreement between SEP (The Association of Polish Electrical Engineers) and IEEE, extended for the three-year period 1980-1982, was signed by Mr. T. Dryzek, SEP President, and Dr. J. Suran, IEEE President.

Commemoration of Michael I. Pupin. On December 10 1979, Prof. A. K. Smoliński, Past Chairman of the Poland Section, took part in the Ceremony of Commemoration of the 125 years anniversary of the birth of Michael I. Pupin, born in Serbia, then US citizen, Professor of Columbia State University, one of the Presidents of the American Institute of Electrical Engineers - the predecessor of the IEEE. This ceremony, organised by the Polish Academy of Sciences, took place at the Technical University in Warszawa in the presence of the Ambassador of Yugoslavia to Poland, Mr. Mehidin Begić.

Tenth European Microwave Conference. The International Conference designed for the Microwave Community, will be held in Warsaw, Poland, on September 8-12 1980. The conference is supported by the Association of Polish Electrical Engineers (SEP) in co-operation with: EUREL (The Convention of National Societies of Electrical Engineers in Western Europe), International Microwave Power Institute (IMPI), International Union of Radio Sciences (URSI), IEEE Region 8 and the following societies and groups: Antennas and Propagation, Electron Devices, Magnetics, Microwave Theory and Techniques, as well as in association with Microwave Exhibitions and Publishers Ltd. Prof. A. Sowiński, Poland Section Chairman, will also take the Chair of the Technical Programme Committee of the Conference.

Membership. Membership of the Section as of December 31 1979 was 52.

SWITZERLAND SECTION

The Section membership increased from about 750 at the end of 1978 to about 830 at the end of 1979, i.e. by 11%. Two newsletters were sent to the members in April and October announcing a large number of meetings at the major universities. The annual fall excursion to a nuclear power station and a mail sorting centre was attended by 86 members. Four special meetings of a new kind were held in the western part of Switzerland, highlighting advanced technology in industry: Integrated circuits research and production and optical communications. The Switzerland Chapter on Digital Communications Systems held two large meetings in the fall, one in Zurich on Digital Communications with 300 people attending and one jointly with the Swiss Chapter of the ACM in Berne on Distributed Processing in

L'ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE

met au concours un poste de

PROFESSEUR D'INFORMATIQUE TECHNIQUE

qui aura mission de développer l'enseignement, la recherche et les activités de service dans le domaine des systèmes informatiques industriels: architecture matérielle et logicielle des systèmes en temps réels; interfaces et procédures de dialogue entre processeurs et applications; langage en temps réel et orientés "applications".

Outre les compétences sus-mentionnées, l'EPFL attend de ce nouveau professeur une importante expérience industrielle, des aptitudes pédagogiques confirmées et une large ouverture d'esprit.

Les personnes intéressées à faire acte de candidature voudront bien demander le dossier de ce poste jusqu'au 30 juin 1980 à la:

Direction Administrative de
l'Ecole Polytechnique Fédérale de Lausanne
33 Avenue de Cour
1007 Lausanne, Suisse

Industrial Applications with an attendance of over 200. The Chapter officers also worked hard on the preparation of the 1980 Zurich Seminar. Another active group met several times discussing current problems on Society and Technology. In April, the Section was host to the IEEE Region 8 meeting held in Zurich and honoured by the presence of Jerome J. Suran, President of the IEEE, and Eric Herz, General Manager.

The 1979 student paper contest organised jointly with ASE/SEV, the Swiss Electrotechnical Society, ended with the distribution of three prizes at the ASE/SEV annual assembly. The happy winners were E. A. Zurfluh, C. Clément and C. da Silva Bartolo, for their excellent diploma thesis work at the Federal Institutes of Technology in Zurich and Lausanne. At the World Telecommunications Exhibition and Conference, TELECOM 79 in Geneva, IEEE was present with a bookshop set up by Headquarters with assistance by F. de Coulon.

UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

Obituary. It is with deep regret that we record the death in March 1980 of Dr. R. L. Smith-Rose, CBE (Fellow), who was the Treasurer of the UKRI Section from its inception up to 1973. Dr. Smith-Rose, from 1936 head of the Radio Division of the National Physical Laboratory, became Director of Radio Research, DSIR, from 1947 until his retirement in 1960, in which year he served as President of URSI.

Also in February 1980, of Dr. W. Saraga (Fellow), Chairman of the Circuits and Systems Chapter and a member of the Executive Committee. Dr. Saraga was noted for his innovative research in circuit theory and filter design.

Also, early in 1980, of Mr. Charles Earp, OBE (Fellow), notable for his distinguished work on radio navigation and on information theory.

New Fellows. The following were elected to Fellow grade as of January 1 1980: Prof. Jeffrey H. Collins, Dr. Philip Fire, Mr. Alan B. Wood, Dr. John D. Rhodes.

Awards. Prof. E. Openshaw Taylor, past-chairman of the PC Chapter, has been awarded the Alfred N. Goldsmith Memorial Award by the IEEE Professional Communication Society.

The Circuits and Systems Society has selected a Transactions paper by the late Dr. W. Saraga, with co-authors David G. Haigh and Robert G. Barker, for the 1979 Darlington Award.

Annual General Meeting. Following the AGM on March 20, a lecture on "Power from other services" was given by Dr. D. T. Swift-Hook of the Central Electricity Research Laboratories, Leatherhead.

Executive Committee Meeting. Prior to the meeting held on March 20, the committee members were addressed by Dr. John A. Powell, a Senior Member who served on the Finniston Committee, on some aspects of the Finniston Report "Engineering our Future".

Co-sponsoring of Conferences. The UKRI Section currently has IEEE representatives on the organising committees of 20 conferences.

Forthcoming Events. On September 11 and 12 1980 a lecture course on "Microprocessors: present state and future trends" will be held at the City University. The course is sponsored by the IEEE Circuits and Systems Chapter and by the City University, with lectures from STL (Harlow) and the City University. The registration fee is £92 (£87 for early registrations) with a £5 reduction for IEEE members. For details contact Dr. A. C. Davies at City University, Northampton Square, London EC1V 0HN.

A lecture on the future of radio communication will be given by Mr. C. S. den Brinker, Technical Director of Redifon Telecommunications, at a Section meeting to be held in London on November 13 1980. Further details later.

Dr. Christian Jacobaeus will speak on "Telecommunications and safety" at a joint meeting with the IEE, to be held on November 12 1980 at 1800 (tea 1730) at the IEE, Savoy Place, London.

STUDENT NEWS

EUROCON 80 has been attended by more than 100 students, from various countries. Several branches have organised a trip at this occasion to Stuttgart: the most important groups came from Delft, Eindhoven, Lille, Louvain-la-Neuve and Rome. It gave the opportunity to students not only to attend the sessions but also to meet with practising engineers and with students from other schools and countries.

The 13th Undergraduate Student Paper Contest was held on Friday, March 28. The attendance was over 100 persons, including students, IEEE student branch counsellors and Section chairmen from various countries. As usual, the jury was international: Prof. Bolinder (Göteborg), Prof. Reiner (Karlsruhe), Mr. Osborne (London), Dr. Schmitt (Hamburg) and Prof. Stumpers (Eindhoven). Five papers were submitted to the contest, from Göteborg, Haifa, Louvain-la-Neuve, Madrid and Tampere.

The first prize (\$200 from the Life Member Fund and \$250 from Region 8) was granted to the paper "Photovoltaic solar energy conversion by means of bifacial DSSF solar cells" by J. A. del Alamo from ETSI Telecommunicacion, Madrid, Spain. The second prize was granted ex-aequo to two papers: "Blissograph. A pointer for Bliss symbols", H. Persson from Chalmers Institute of Technology, Göteborg, Sweden, and "Study and realisation of a high speed specialised processor designed for a network analyser", S. Jespers and

Ph. Thibaut, Université Catholique de Louvain, Louvain-la-Neuve, Belgium. The students presenting these papers were invited to Stuttgart at the cost of Region 8.

As announced before, a Post-graduate Student Paper Contest has been organised for the first time. The jury granted the first prize ex-aequo to two winners who will share a \$700 prize: "New solutions in adaptive signal detection", D. M. Gomez-Allende, ETSI Telecommunicacion, Madrid, Spain, and "Development of an optical spectrum analyser using a lateral photodiode", A. Alping and U. Aiff, Chalmers Institute of Technology, Göteborg, Sweden. The third prize was granted to the paper "A review of optically switched transducers for acoustic imaging", S. O. Ishrak, King's College, London, United Kingdom.

At this occasion, we also had again a general counsellor meeting, attended by counsellors, student representatives who had attended EUROCON, and Section chairmen. It was an excellent meeting, with more than 40 participants, coming from more than 20 schools. It gave to the participants the opportunity to describe their experience and the activities going on in their IEEE student branch.

It was also the occasion to thank Mr. May, from Stuttgart Technical University, who devoted much of this time and energy to the student programme and accommodation during EUROCON 80.

PROF. A. VANDER VORST
Region 8 SAC Chairman

ADVERTISING AND INSERT RATES

ADVERTISING RATES

Display - \$1,200 per full page, \$650 per half page, \$350 per quarter page. These rates are for 'camera ready' copy - a charge at cost will be made for any setting required.

INSERT RATES

For full Regional distribution to over 10,000 members in Europe, Middle East and North Africa, size A5 or folded to A5 (148mm x 210mm), weight 10gms \$1,200, 20gms \$1,300, 30gms \$1,400. Lower rates for distribution to one country only or to a group of countries. Additional charge if collation or folding required. Recommended method of delivery to County Secretarial Services is by direct air mail parcel post (check local postal regulations for maximum weight per parcel) or by air freight addressed to County Secretarial Services, c/o United Marine (1939) Ltd, Building 521, Room 23/1, London Heathrow Airport. Surface transport is liable to considerable delay at port of entry. Before shipment of inserts check that the deadline date will be met including allowance for customs clearance and delivery to Guildford.

All the above rates are net and include no allowance for discount. Deadline dates in box on front page.

ENQUIRIES TO County Secretarial Services, P.O. Box 7, Guildford, Surrey, England, GU2 5HH

Telephone National Guildford 77777 (STD Code 0483)
International +44 483 77777

Telex 264045 ERALHD G
Registered Telegraphic Address COSEC GUILDFORD
Deliveries 8 The Flower Walk, Guildford, Surrey