

# IEEE Region 8 newsletter



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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
INCORPORATED

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No. 55

AUGUST 1981

## REPORT ON MELECON '81



Right: Mr. Itzhak Navon, President of the State of Israel. Left: Prof. E. N. Protonotarios, Chairman, MELECON '83.

The word "electron" originally derived from a Hebrew word, and therefore to hold the first MELECON '81 conference in Israel was very appropriate. This is what was said by His Excellency Mr. Yitzak Navon, President of Israel, at the opening ceremony of MELECON '81 at the Tel Aviv Hilton on 25 May. He welcomed the Conference because the use of solar energy is one of Israel's major problems, and he hoped it would help to bridge the gap between those in universities and research, who know, and those in government and in industry, who do.

MELECON '81 welcomed more than 1200 participants, most of whom came from Israel. The attendance from other countries was in fact disappointing; the reasons are by no means clear, and one of the duties of Region 8's newly appointed Conference Co-ordinator, Dr. Jacob Baal Schem, is to suggest how this attendance can be increased in future. There were four parallel sessions at which 132 papers were presented. The exhibition associated with the Conference indicated that Israel now has an increasingly strong and technically advanced electronics industry. Included in the exhibition were booths for IEEE Membership and for Continuing Education, both of which attracted considerable interest.

So little is written in this short report about the technical program that I can mention only three papers. Under the title "Some facts about Wind Energy in California", M. Ginosar of the California Energy Commission, Sacramento, California, U.S.A., presented the results of a study to provide ten per cent of California's power station capacity by wind power. To meet the target would require about 2 000 4MW wind turbines, each operating at an overall efficiency of 41 per cent, each with a tower height of 60m and a blade diameter of 91m. They would cost \$2 000 - \$2 500/kW now, reducing to below \$1 000/kW in quantity production. Because of the effect on the environment, 75 per cent of California is excluded; wind turbines would be erected only in desert areas where

there are virtually no inhabitants. Clearly those members of the public who clamour for wind power as an alternative energy source do not understand how the countryside will be changed, and clearly engineers should be explaining what will happen.

Of particular interest in the session on Solar Power was a paper by U. El-Gad, M. Brandys, and M. Azulay of the Tadiran Co., Israel, on "A Mobile Solar Power System for Military Applications". The duty cycle is the operation of a 24V radio equipment requiring 500W on transmit and 95W on receive, operating continuously, on a 1:9 transmit/receive ratio, amounting to about 2 400 Wh per day. Two sub-systems operate in parallel, each using nine high density silicon solar cells on folding panels. When on the move the panels are folded but six remain exposed. Each sub-system charges a conventional 24V, 300Ah battery. The advantages claimed for military applications are mobility, reliability, and silence.

An interesting investigation into the relevance of a college curriculum to job needs was described by S. Waks of the Technion-Israel Institute of Technology in the session on Education.

The investigation, which was carried out on a course of a little below bachelor's degree level, was based on questions submitted to students who were just finishing the course, to those who had qualified, and to employers and teachers. The results revealed the importance attached to various aspects of competency: practical ability came first, but whereas 26 per cent of employers thought self-learning ability important, only five per cent of senior students thought so; 10 per cent of senior students thought technical reporting important, but only one per cent of employers, a result which the investigators consider needs attention and correction.

ROBERT C. WINTON  
London, England



From right to left: Mrs. R. W. Damon; Dr. R. W. Damon, President of IEEE; Dr. J. Baal-Schem, Chairman, MELECON '81; Mrs. J. Baal-Schem; Prof. A. Lavie, Chief Scientist, Ministry of Commerce, Industry and Tourism; Mr. I. Ish-Hurvit, Chairman, IEEE Israel Section.

## INSTITUTE AWARDS

One extremely important activity of a professional society is the recognition of distinguished achievement and service. IEEE Awards serve several purposes:

(1) they are an expression of recognition for outstanding contributions to the art and science of electrical and electronics engineering; (2) they are an incentive to youth to emulate excellence; (3) they are a personalized presentation to the public of the achievements of the profession

and its members; and (4) they are the identification of IEEE with these achievements.

All individual members, Groups/Societies and Sections of IEEE are eligible to nominate candidates for awards, medals, scholarships and prizes; and to support such nominations by submitting forms and relevant communications to the Secretary of the Awards Board at IEEE Headquarters from whom a complete list of the awards may be obtained.

## REPORT FROM THE REGIONAL DIRECTOR



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

In the last Newsletter I told you about the very welcome visit to Region 8 by IEEE President Dick Damon, General Manager Eric Herz, and Vice-President for Regional Activities Larry Wilson. The results were very encouraging, and included discussions with EUREL President Jean Syrota in Paris and talks in Budapest on IEEE activities in Hungary. Dick Damon also visited INTERMAG, and was on the platform, together with His Excellency Mr. Yitzack Navon, President of Israel, at the opening of MELECON '81.

You will find a report on MELECON '81 elsewhere in this Newsletter, but I must congratulate Dr. Jacob Baal Schem, Chairman of the Steering Committee, and

all the many people who helped him, on its success. In respect to other major Region Conferences, the EUROCON '82 technical program and arrangements already look most interesting, but I appeal to you to give support to the exhibition through your companies or universities. The planning for MELECON '83 started some months ago under a Steering Committee chaired by Professor Emmanuel Protonotarios; it will be held in Athens on 24-26 May 1983, with the themes of Solar Energy and Electrical Power Systems, Communication Systems, and Computers. EUROCON '84 is planned to be held in Brighton, England, on 25-28 September 1984 with the theme Computers, Communications, and Control; I am delighted that Professor John Brown, a Fellow of the IEEE and former President of the British society The Institution of Electrical Engineers, has accepted a joint EUREL/IEEE invitation to be Chairman of the Steering Committee.

It was my pleasure to be Chairman for the first time of the Region 8 Committee when we met at Herzlia, Israel, on 28-29 May. Among those whom the Committee welcomed to the meeting were Dick Damon, Eric Herz, Larry Wilson, and Vice-President for Technical Activi-

ties Irving Engelson; also Peter Goddard, Chairman of the South Africa Section which became part of Region 8 this year. During the meeting Bob Winton handed over to Herbert May as Region 8 Treasurer, but Bob Winton continues as Regional Secretary.

Dr. Baal Schem accepted an invitation to take on the new position of Region 8 Conference Co-ordinator, a function which has become necessary because of the many conferences in which the Region now participates. Dr. Roger Wellinger, a former Director of Region 8 and founder of EUROCON, who now represents the Publications Board on the Committee, agreed to accept responsibility for a problem which has so far proved insoluble - how to speed up delivery of IEEE publications to members in Region 8. The Committee unanimously agreed to a Motion by Professor Antonio Luque, Chairman of the Spain Section, asking IEEE to focus attention on solar power. The Committee also considered arrangements for the IEEE Centenary in 1984, and Sections were encouraged to make local arrangements to celebrate it, in addition to any arrangements which will be made by Region 8.

Our regional organisation continues to expand. The Saudi-Arabia Section held its inaugural meeting on 17 June, and Kuwait, Libya, and Kenya have expressed interest in establishing Sections.

During a visit I made to Kenya and South Africa which are now part of Region 8 I was very impressed by their hospitality and by their interest in IEEE activities.

So far I have been able to provide good news in this report, but now I wish to mention news which is not so good. Far too many members in our Region are in arrears with their dues for 1981; many more, in fact, than in past years, which I find surprising now that many members can pay by credit card, which avoids difficulties encountered in the past. I am aware that payment from some countries is still not too easy, and I should be pleased to hear from members in these countries who believe I can help. But I ask the Membership officers of all Sections to contact those of our members who are in arrears, and encourage them to pay their dues, especially now that we are such an active Region.

WALTER E. PROEBSTER  
Boeblingen, Federal Republic of Germany

## STUDENT ACTIVITIES

The 14th Student Paper Contest of the IEEE Region 8 took place on May 27 1981 at Tel-Aviv University.

The jury, international as usual, was composed of Prof. Alexandrovitz (Technion, Haifa), Prof. Bolinder (Chalmers, Gothenburg), Prof. Grünbaum (Tel-Aviv University), Mr. Osborne (Chairman, UKRI Section), Mr Poortvliet (Past Region 8 Director) and Prof. Protonotarios (University of Athens).

Seven papers were submitted to the contest in January 1981; out of these, five papers were retained by the jury for oral presentation and their authors invited to Tel-Aviv, at the cost of Region 8 Student Activities. The final decision taken by the jury is the following.

The first winner is the paper "Word recognition system" by Z. Shpiro and R. Weissman from the Technion, Haifa, Israel. They won a 300 dollar prize from the Life Member Fund of the IEEE, as well as a 250 dollar prize to help to organize a trip to the United States.

The second winner, with a 150 dollar prize from the Life Member Fund,

is the paper "The influence of the wind direction on rain-induced cross-polarization" by F. Gielkens from the Eindhoven University of Technology, Benelux.

The third winner, with a 75 dollar prize from the Life Member Fund, is the paper "Optimal control of the primary coolant temperature in a nuclear power plant" by J. Godet from the University of Louvain-le-Neuve, Benelux.

Thanks are due to the Life Member Fund for offering prizes and increasing its contribution in 1981, and to the Israel Section who organized the contest and made the arrangements for the contestants.

The next contest will be in Copenhagen, in June 1982, within the frame of EUROCON '82, with a deadline for submitting papers which will probably be the end of January 1982. On this same occasion, a general Counsellors Meeting will be held, as in Stuttgart in 1980.

PROF. A. VANDER VORST

## 1982 L M ERICSSON INTERNATIONAL PRIZE

The L M Ericsson International Prize was presented for the first time in May 1976, in connection with the celebration of the Company's 100th anniversary.

The Prize of 200,000 Swedish Crowns - which honours the memory of Lars Magnus Ericsson, founder of the Company - is designed to encourage and advance research and development within the field of telecommunications engineering and is being awarded every third year in recognition of an outstandingly significant "scientific or technological contribution within telecommunications engineering" during the three-year period preceding the award year. Earlier contributions whose importance becomes established during the three years are also eligible for nomination.

The winner of the Prize is selected by an independent Prize Committee consisting of members appointed by the Royal Swedish Academy of Engineering Sciences, the Board of Directors of the Swedish Tele-

communications Administration and representatives of leading Swedish institutes of technology. Candidates may be nominated by members of the Prize Committee and by organizations or individuals active in the telecommunications field.

Nominations are now being accepted for the 1982 award. All nominations must be in writing and should be accompanied by all relevant supporting material. The closing date for nominations is October 1 1981. Only the winner's name will be disclosed. Where the Prize contribution results from the work of two or three people, the Prize may be awarded jointly.

Nomination of candidates, or requests for further information including the complete rules governing the award, should be addressed to: Professor E. Folke Bolinder, Chalmers University of Technology, Division of Network Theory, S-412 96 Gothenburg, Sweden.

## REGION 8 NEWS

### Regional Conference Coordinator Appointed

The Region 8 Committee decided at its meeting in Herzlia, Israel on 28-29 May 1981, to appoint a Regional Conference Coordinator who will be a member of Region 8 Committee. Dr. J. Baal-Schem, Junior Past Chairman of IEEE Israel Section and Chairman of Melecon '81 has been appointed by the members of the Committee as Conference Co-ordinator and granted power to vote on the Regional Committee meetings.

Among the areas of responsibility of the Regional Conference Co-ordinator are the following:

- To obtain information on major international conferences planned within the area of Region 8, whether planned by IEEE organisations or by other organisations.
- To take steps to reduce any difficulties which may be caused to IEEE Sections or to national societies in Region 8 or of other IEEE organisations, such as Groups and Societies.
- To assist in the planning of important conferences in which Region 8 takes a major part, such as EUROCON and MELECON, in order to prevent conflict between the dates, locations, and subjects of other conferences.

- (d) To advise on the best methods of promoting major Region 8 conferences, such as EUROCON and MELECON.
- (e) To establish and maintain cooperation with Conference Coordinators appointed by Sections in Region 8 and to keep them informed of Major international conferences planned in the area of their Sections.

Dr. Baal-Schem has already announced his intentions to ask all Sections in Region 8 to nominate Section Conference Coordinators who would keep the R.C.C. informed of major international and national IEEE sponsored or co-sponsored conferences to take place in their Section and to assist the R.C.C. in carrying out his responsibilities. The newly appointed Regional Conference Coordinator promised to assist steering committees of major IEEE sponsored and co-sponsored

international and national conferences in Region 8 in the planning, promoting and organizing of these conferences. He will be in close contact with the officers in charge of conference activities at IEEE Headquarters, who have already promised to assist Region 8 in the promotion of conferences.

As a first activity, Dr. Baal-Schem hopes to publish in the November issue of IEEE Region 8 Newsletter a complete listing of conferences sponsored or co-sponsored by IEEE in Region 8 for the year 1982. Conference chairpersons and section chairpersons are requested to send all pertinent information on 1982 conferences (including name, date and location of the conference, IEEE sponsorship, language, exhibition details and information contact) to: Dr. J. Baal-Schem, P.O.B. 1205, Holon 58112 Israel.

## MEETINGS IN REGION 8

### International Symposium on Circuits and Systems

The 1982 IEEE International Symposium on Circuits and Systems will be held in Italy at the University of Rome on May 10-12 1982. The Symposium will include **special sessions** on specific advanced aspects in the theory and application of circuits and systems, **workshops** to present the state of the art of selected subjects and stimulate discussion and proposals on future activity, **round tables** on advanced topics. This 15th presentation of the ISCAS will be devoted to all aspects of the theory, design and application of circuits and systems. The special sessions, workshops and round tables will be particularly focused on Very Large System Integration, design, construction and testing of Special Devices, Non-linear Circuits and Systems, Image Processing, Fault Tolerance. Proposals for special sessions may be submitted by September 1 1981 to Prof. Vito Cappellini, Ist. di Elettronica, Università di Firenze, Via di S. Marta 3, 50139 Firenze, Italy. Prospective contributors to the Symposium programme are invited to send, before 1 October 1981, four copies of the full text of their papers, for review, to Prof. Valerio Cimagalli, Ist. di Comunicazioni Elettriche, Università di Roma, Via Eudossiana 18, 00184 Roma, Italy.

### 12th International Symposium on Multiple-Valued Logic

The Symposium is organized by the IEEE Technical Committee on Multiple-Valued Logic. Sponsored by the IEEE, the Institut de Programmation (Université Paris VI), and AEIIE-CNAM (Conservatoire National des Arts et Métiers), it will be held in Paris, France, on May 25-27 1982.

The main topics are: Algebraic and formal aspects; Circuits and device implementation; Fault detection and diagnosis; Fuzzy logic; Logic design and switching theory; Philosophic aspects; Probabilistic and variable-valued systems; Optical computing; and VLSI.

Participants intending to contribute should submit a paper before November 15 1981 (fifteen pages max) to: S Thelliez, ENSAM Cluny, 71250 Cluny, France. Author(s) must be identified by name, title, affiliation, complete address and telephone number.

Further information from: M Israel IIE-CNAM, 292 rue Saint-Martin, 75141 Paris Cedex 03, France.

### International Symposium on Electromagnetic Compatibility

The Sixth International Wroclaw Symposium and Exhibition on Electromagnetic Compatibility will be held in Poland at the Wroclaw Technical University, Wroclaw, on June 22-24 1982.

The scope will cover all aspects of EMC theory and practice, EMC being understood in a broad sense as the ability of a device or system to function in its electromagnetic environment without introducing or suffering intolerable disturbances. Suggested topics include: Systems EMC: Equipment EMC: Spectrum utilization: Radiation hazards: EM noise sources: Measurement technology and spectrum monitoring: Antennas and propagation: EMC standards; Lightning and EMP: EMC aspects of application of new concepts: Computer aided EMC analysis and design. A special session on bioeffects is planned which will be held under the auspices of the Nonionizing Radiation Commission of the Polish Academy of Sciences.

Prospective authors are invited to send, before September 30, 1981, five copies of a one-page summary in English. One copy should be sent to: Prof. F. L. Stumpers, Elzentlaan 11, Eindhoven, The Netherlands. The remaining copies should be sent to: Prof. R. Struzak, EMC Symposium, Box 2141, 51-645 Wroclaw 12, Poland.

For further information please contact: Mr. W. Moron, Secretary General, EMC Symposium, Box 2141, 51-645 Wroclaw 12, Poland. (Telex 0712118 ilw pl).

### 6th International Conference on Pattern Recognition

All interested in the field of pattern recognition in general are invited to attend the 6th ICPR at the Technical University in Munich, Germany, October 19-22 1982. The conference is organized by the International Association for Pattern Recognition (IAPR), and the Deutsche Arbeitsgemeinschaft fuer Mustererkennung (DAGM) in co-operation with the German Section of IEEE.

Papers are sought on all aspects of pattern recognition, including: Classification of patterns; Analysis of patterns; Implementations; and Applications. Furthermore, contributions to poster sessions covering these areas of interest are invited.

Application of pattern recognition should be a focal point of the conference and hence papers in this area are particularly welcome. This aspect will be further emphasized by the inclusion of an industrial programme, featuring industrial exhibitions and reports.

Prospective authors are invited to submit four copies of a draft of a full-length paper in English no later than February 1 1982 or an abstract for the Poster Session by April 1 1982 to the programme chairman: Prof. Dr. H. Niemann, Lehrstuhl fuer Informatik 5 der Universitaet Erlangen-Nuernberg, Martensstr. 3, 8520 Erlangen, F.R. of Germany.

### Second World Conference on Continuing Engineering Education

The Second World Conference on Continuing Engineering Education will take place on 6-8 April 1983 in the UNESCO Headquarters, Paris. The roles of universities, governments, professional societies, and industry in the continuing education of engineers will be discussed in relation to problems of needs, promotion, costs, staffing and evaluation; the social aspect of continuing education of engineers will also be considered.

The Conference will be organized by the European Society for Engineering Education in co-operation with other organizations, including IEEE Region 8. The call for papers, programme and other information of the conference can be obtained from: N. Krebs Ovesen, Danish Engineering Academy, Building 373, DK 2800 Lyngby, Denmark.

The First World Conference on Continuing Engineering Education took place in Mexico City in April 1979. It drew over six hundred participants from almost sixty countries. The Second World Conference will follow up and expand the results from the first conference.

### Power Engineering Society of the IEEE

## CONFERENCE AND EXPOSITION ON OVERHEAD AND UNDERGROUND TRANSMISSION AND DISTRIBUTION

Minneapolis, U.S.A., September 20-25 1981

This Conference is regarded as the most definitive meeting of its kind in the World on the transmission and distribution of electric power and will feature all aspects of systems and equipment.

The meeting offers to the attendee five days of outstanding technical sessions and three days of hands-on equipment exhibits in what has become the world's largest conference and exhibition on power transmission and distribution. The conference theme is 'The impact of change on tomorrow's transmission and distribution systems' and reflects the need for evolutionary changes in components and system integration to meet external uncertainties and changes. The scope includes all T and D functions relating to power systems engineering, lines and accessories, substations, switchgear, transformers and surge protection devices, with added emphasis on system protection, relaying control and communications. Additional areas of interest will be the effect of integrating new power sources and technologies such as solar, batteries, fuel cells and load management into overhead and underground transmission and distribution.

THE COMMERCIAL SECTION OF THE AMERICAN EMBASSY, BONN, GERMANY, IS ORGANISING A GROUP STUDY TRIP TO THE CONFERENCE AND EXPOSITION. THE ADVANTAGES ARE CHEAPER AIR FARE, GUARANTEED LUXURY HOTEL AND U.S. EMBASSY PROVIDED ESCORT TO ASSIST IN ALL BUSINESS MATTERS.

INTERESTED PERSONS SHOULD CONTACT AS SOON AS POSSIBLE:

Mr. JOHN LUMBORG  
COMMERCIAL SECTION  
AMERICAN EMBASSY  
53 BONN 2, GERMANY

Telephone: 0228-339-2266

Telex: 0885455

## MELECON '83 AND EUROCON '84

### Athens to host Melecon '83

Melecon '83, the second Mediterranean Electrotechnical Conference, will be held in Athens, Greece on 24–26 May 1983. The Conference will concentrate on three main areas:

- **Solar Energy and Electric Power Systems**, including: Photovoltaics; Solar-thermal electricity and solar ponds; Wind power systems; Economic modelling of energy systems; Reliability, monitoring and flow control in power systems.
- **Communication Systems**, including: Transmission systems; Communication switching and traffic theory; Transmission, transportation and communication networks; Computer communications and data transmission; Communication needs in the Mediterranean countries; Microwave antennas and optical communications.
- **Computers**, including: Microprocessor applications; Control and industrial automation, Computer modelling and evaluation of performance; Distributed processing and data bases; Trends in software development.

Melecon '83 follows Melecon '81 which attracted over 1200 participants. The Conference is sponsored by IEEE Region 8 and the IEEE Greece Section, and is organized in cooperation with National Associations of Electrical Engineers in Mediterranean countries.

Two-day tutorials on the main themes of the Conference, conducted by distinguished instructors, will be organized after the technical program of the Conference.

The Chairman of the Conference Steering Committee is Prof. E. N. Protonotarios, Dean of the Faculty of Electrical Engineering at the National Technical University of Athens. The Chairman of the Technical Program Committee is Prof. P. Civalieri of the Institute Electronico Galileo Ferraris Cozao in Torino, Italy.

For the first time in IEEE Region 8 Conferences, a Young Engineer Contest, for graduates under 28 years, will be included in the Conference on the basis of papers accepted for presentation.

Special attention will be given to the participation of students, including arrangements for participation at a reduced price, and the annual IEEE Region 8 Student Paper Contest will be held during the Conference.

Additional special events associated with Melecon '83 are: social gathering, visits to archeological sites and acquaintance with ancient, medieval and modern Greek cultural life and a special program for persons accompanying the participants.

A first announcement and Call for papers has been issued and copies are included with this Newsletter. The date for accepting 200 word abstracts for Melecon '83 is 30 September 1982.

Enquiries: MELECON '83 SECRETARIAT c/o Prof. E. N. Protonotarios  
National Technical University, 42 October 28th St.  
Athens (147), GREECE

### Eurocon '84 to be held in England

The proposed title for EUROCON '84 is "Computers, Communications and Control" and the planned dates are 26–28 September 1984 in Brighton, England, which is within easy reach of Gatwick Airport, London and the Channel ports. At the end of the holiday season there, ample residential accommodation is available.

The conference is proposed to follow the IBC '84 Broadcasting Convention at the same conference centre; this will enable some exhibitors to keep their exhibits in place for both events. The subject matter of EUROCON '84 does not overlap directly with that of the IBC.

Further information will be published as soon as possible when further consideration has been given to the proposals by EUREL.

## NEWS OF THE SECTIONS

### AUSTRIA SECTION

The IEEE President R W Damon and Eric Herz visited the Section in Vienna on May 15 1981. The active membership totals 66 and the following lectures have been presented:

"Effects of Electromagnetic Field in Humans" by Prof. S. Schuy, Technical University of Graz, Austria. Attendance 125 (30 IEEE Members).

"Investigations on the Reliability of Electronic Components and Systems" by Dr A Sathy, BVFA, Vienna, Austria. Attendance 40 (10 IEEE Members).

"R & D in the Dr. Neher Laboratories of PTT Netherlands" by Ir. A. Boesveld. Attendance 46 (15 IEEE Members).

"Long Distance High Speed PCM Transmission" by S. Usher, BSc, Standard Telephone Labs, Harlow, England. Attendance 80 (23 IEEE Members).

"Aspects of Technical Realization" by J. D. Weston, BSc, Standard Telephone Labs, Harlow, England. Attendance 80 (23 IEEE Members).

#### Section Officers:

Chairman: Prof. Dr. Kurt R. Richter, Technical University Graz, Kopernikusgasse 24, A-8010 Graz, Austria.

Vice Chairman: Dr. Robert Genser, ÖBB General Direktion, Stabsstelle Informatik und Kybernetik, Althanstraße 2, A-1090 Wien, Austria.

Secretary: Dr. Andreas Sathy, Bundesversuchs- und Forschungsanstalt Arsenal, Franz-Grill-Straße 3, A-1030 Wien, Austria.

Treasurer: Dipl.-Ing. Franz Voggenberger, E. Schrack EAG, Pottendorferstraße 25–27, A-1121 Wien, Austria.

### FINLAND SECTION

At the annual meeting in January the following Section Executive Committee was elected for 1981: Chairman Johan Tallqvist; Vice-chairman Yrjö Neuvo; Secretary Henrik Stubb; Treasurer Iiro Hartimo. The new vice-chairman Yrjö Neuvo is a professor in electronics at Tampere University.

The technical program of the annual meeting was arranged by the Telecommunications Laboratory of the Technical Research Centre of Finland. The director of the laboratory Esko Heikkilä and his co-workers presented their projects on receivers for satellite TV and weather pictures to an interested audience. The topics of the two other technical programs during this spring also attracted large audiences. Industrial robots were presented by specialists from the academic world and the robot industry. The program was arranged by Antti Niemi who is a research professor of the Finnish Academy and specialized on this subject. At the other meeting we made acquaintance with flight simulators guided by Timo Erissalo, the director of the Finnair simulator group. These two meetings were held in co-operation with the national electronics engineers society.

The annual Day of Electricity arranged by eighteen national electrical societies and IEEE-Finland Section gathered some 200 participants. Sixteen speakers representing government, academic world and industry gave their views on the present status of electrical engineering. The energy questions were central.

However, the special highlight of the Spring was the visit by the IEEE President Richard W. Damon to Finland. He was unfortunately wel-

comed by most cold weather, but so much warmer was the atmosphere at the informal meeting with the past and present Finland Section officers. His visit was highly appreciated.

### GERMANY SECTION

A meeting of the Executive Committee of the German Section took place at the end of January 1981 at the Munich Technical University on the invitation of Prof. Saal (Vice-Chairman of the German Section). Future activities of the German Section, conference plans and questions of membership were discussed. Membership development, especially in Student grade, continues positive. New IEEE membership information brochures and application forms, also for Senior Member grade, are available from the Section Secretariat. The Section will co-sponsor a conference on "Sensors-Technology and Application in Electronics" to be held from March 9–11 1982, in Bad Nauheim, as well as the 6th International Conference on Pattern Recognition (ICPR) from October 19–22 1982 in Munich, Germany.

The ExCo-Meeting was followed by a regional member meeting with about fifty members from the Munich area. Occasional delays in the delivery of IEEE publications and difficulties concerning the transfer of the membership fee to the USA were discussed. Prof. Proebster, this year in double function for IEEE as Chairman of the German Section and Director of Region 8, declared that these problems would be dealt with in future conversations and meetings of the competent IEEE committees in order to effect an improvement.

The "1980 Darlington Prize Paper Award" of the IEEE Circuits and Systems Society was given jointly to the authors Alfred Fettweis, Dieter Herbst, Bernd Hoefflinger, Jürgen Pandel and Rainer Schweer for their publication "MOS Switched-Capacitor Filters Using Voltage Inverter Switches" (IEEE Transactions on Circuits and Systems, Vol. CAS-27, No. 6, June 1980). This award is given annually for outstanding papers published in the above-mentioned Transactions.

### GREECE SECTION

During the last six months, the main events for the Greece Section included the following:

The Power Engineering Chapter was organized and started functioning with its own activities.

Preliminary work is underway for the establishment of a joint Chapter in Computers and Communications.

Initial work has started for organizing Melecon '83 to be held in Athens.

A series of eight lectures were presented within the Section.

A two day Seminar was organized by IEEE Greece Section/Power Engineering Chapter and the Polytechnic School of Demokritos University in Xanthi (May 11–12, 1981) covering topics in: Automatic Control Systems, Power Systems and Communications.

We experienced a substantial increase in student membership.

The Section participated actively in the organization of Melecon '81.

#### Section Officers:

Chairman: Professor E. N. Protonotarios, National Technical University, Athens. Vice Chairman: Professor M. Stringis, University of Thessaloniki. Secretary/Treasurer: Professor D. Papadopoulos, University of Thrace, Xanthi.

Chairman of Membership Development: Dr. E. Economakos, Public Power Corporation, Athens. Chairman of Professional Activities: Professor P. Paraskevopoulos, University of Thrace, Xanthi. Chairman of Educational Activities: Professor G. Vachtsevanos, University of Thrace, Xanthi. Chairman of Student Activities: Professor G. Kokkinakis, University of Patras.

#### Power Chapter Officers:

Chairman: Professor J. A. Tegopoulos, National Technical University, Athens. Vice Chairman: Professor D. Papadopoulos, University of Thrace, Xanthi. Secretary/Treasurer: Dr. G. C. Contaxis, National Technical University, Athens.

#### ISRAEL SECTION

**Officers:** At the end of 1980 the Section held elections for the next term. The following were elected: Mr. I. Ish-Hurwitz—Section Chairman, Mr. Rafi Hoyda—Section Secretary.

According to the results of the election, the Executive Committee of the Israeli Section includes as of January 1 1981: Mr. I. Ish-Hurwitz—Chairman, Dr. J. Baal-Schem—Past Chairman, Mr. R. Hoyda—Secretary, Eng. M. Snir—Treasurer (pending approval by the Section Meeting).

**New Chapters.** A Computer Chapter is being organized in the Section and a formal petition has been forwarded to IEEE Headquarters. Temporary Chairman of the new Chapter is Dr. Y. Loeb.

**Students' Activities.** An additional Student Branch has been established at the Ben Gurion University of the Negev. The Student Counselor is Prof. D. Tabak. The Student Branch of the Technion, Israel Institute of Technology, has been granted the Vincent Bendix Award Recipient and has organized an IEEE Student Club to which the Section Executive Committee has granted a subscription to all publications of the IEEE Societies and Groups.

Each of the three Student Branches held an undergraduate Student Paper Contest. The two winners in each of the branches were awarded \$100 and \$50 prizes. The winning papers of each branch were entered in the IEEE Region 8 Student Paper Contest.

**Meetings and Lectures:** On 22 November 1980, a lecture was given by Eng. J. Ziv, Director of Technical Services of the Ministry of Communication on behalf of the Communication Chapter in cooperation with AEA. Subject of the lecture was "Digital Communication and Innovations in Telephony".

On 6 January 1981, the S-AP/ED/MTT Joint Chapter held a seminar on Microwave Ferrite Components. The lecture was delivered by Prof. Fred Rosenbaum of the Washington University, Vice Chairman of IEEE Microwave Society.

On 8 January 1981, a lecture was given by Prof. Fred Rosenbaum on behalf of the S-AP/ED/MTT Joint Chapter on Microwave FET Transistor.

On 10 March 1981, the Communication Chapter organized a lecture by Dr. D. B. Medcraft of British Telecom on Recent Developments in U.K. Telecommunication.

On 12 May 1981, a seminar was held by S-AP/ED/MTT Joint Chapter. Dr. Fred Sterzer, RCA Laboratories, lectured on Microwave Hyperthermia Apparatus for the Treatment of Cancer.

The newly organized Computer Chapter met on 16 June, 1981, for a lecture by Donald J. Reifer, Reifer Consultants, Inc., on "Software Engineering and Management".

**Visit of Section Chairman to IEEE Headquarters.** Mr. I. Ish-Hurwitz visited the IEEE Headquarters in New York on April 14 1981 and met with Eric Herz, Executive Director, and Pat Lech, Staff Director, Field Services, and discussed future arrangements: MELECON '81 Progress Report; Region 8 Committee Meeting on 29–29 May 1981 in Herzlia, Israel; IEEE support for the Continuing Education new centre in Israel.

Mr. I. Ish-Hurwitz also met with Mr. Larry Wilson, V.P. Regional Activities; Mr. Hans Cherney, Director of Region 1; and Mr. Irving Engelson, Director of Technical Activities.

**MELECON '81.** Final preparations for MELECON '81 were made by the Israel Section and the Committees achieved most of their objectives. The Preliminary Programme was distributed in March and published in IEEE publications. The technical programme includes 160 papers. MELECON '81 was honoured by the presence of the President of the State of Israel, Mr. Itzhak Navon and by the President of IEEE, Mr. Richard W. Damon.

#### NORWAY SECTION

The technical activities of the Section have been concentrated on conference preparations: MELECON '81; the 34th Norwegian Conference on Electronics and Acoustics held in Sandefjord June 19–21 (co-sponsored with national societies); and EUROCON '82. With regard to MELECON, news inserts in national technical journals were published and brochures and other advertising material have been spread among potential participants. As far as EUROCON is concerned, the work has consisted of finding possible members for technical committees, and the Section was represented at a preparatory conference meeting in Copenhagen in November to discuss special efforts by Nordic reliability experts in connection with EUROCON '82. For this purpose, the national society in Iceland (which has no IEEE section of its own) has also been approached.



IEEE president Dr. Richard W. Damon (No. 4 from left) and Region 8 president Professor Walter E. Proebster (No. 3 from left) together with past and present Norway Section chairmen, left to right: Knut Endresen, founder and first chairman of Norway Section; Magne Eggestad, second chairman; Borje Forssell, present chairman, Research Engineer, Electronics Laboratory, The Technical University of Norway; John Skovholt, fourth chairman.

At the beginning of May, the Section was visited by the IEEE President, Dr. Damon, and his wife, as well as by the Region 8 Director, Professor Proebster. They met with present and past Section Chairmen in Oslo. Subsequently, President Damon and his wife continued to Trondheim where the Section Officers are concentrated at present. At a meeting, Dr. Damon and the Section officers discussed IEEE activities concerning the Section. One special item in this discussion was the delay experienced in the distribution of the IEEE Transactions, Spectrum and Proceedings. On the following day, Dr. Damon gave a talk at the Norwegian Institute of Technology (NTH) to an audience mainly consisting of students on IEEE and IEEE activities. Dr. Damon also met with personal friends in Trondheim, and was informed of the research going on at NTH and the Electronics Research Laboratory (ELAB).

Section membership is steadily rising by 10–15% a year with student membership increasing even faster. However, the number of student members is still very low, and membership development activities will therefore be concentrated on this area.

## R. Isermann Digital Control Systems

Revised and enlarged edition of the German book „Digitale Regelsysteme“ 1977, translated by the author in cooperation with D. W. Clarke, Oxford, U.K.

1981. 159 figures. XVIII, 566 pages

Cloth DM 96,-; approx. US \$ 45.70

ISBN 3-540-10728-2

Price is subject to change without notice

This book provides an in-depth discussion of the design of digital control systems based on process computers and micro-computers. A presentation and comparison of the most important control algorithms, including tuning, noise filtering and actuator control is also given. Methods for process identification and computer aided design are treated as are parameter-adaptive control algorithms and case studies.

Springer-Verlag  
Berlin  
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## SPAIN SECTION

**Present Officers:** Chairman—Mr. Antonio Luque; Vice-Chairman—Mr. Felipe J. Asenjo; Vice-Chairman—Mr. Francisco J. Astray; Secretary—Mr. Javier Eguren; Treasurer—Mr. Luis Ruiz de Gopegui.

**Section Activities:** Editing and mailing to all members of a brochure in Spanish presenting the Spain Section of the Institute.

Organization of a conference tribute to start next September named "Los Jueves científicos del IECUBO—". (The scientific Thursdays of the IEEE).

Visit to the "Control and Manoeuvre Centre of Hidroelectrica Española" in Madrid, one of the most up-to-date utility network control systems in Spain.

Organization of a Seminar on "Electronics and the Environment", to be held in second semester 1981 and of another Seminar on "Military Electronics", to be held in 1982.

Call for papers for the 1981 Student Contest.

## SWEDEN SECTION

The Section was visited in May by Richard W. Damon, 1981 IEEE President, and Walter E. Proebster, Director Region 8, and a meeting was arranged with officers of IEEE Sweden Section.

In March a course in power system control was held at the Royal Institute of Technology. The lecturer was Prof. John Zaborsky.

Dr. Christian Jacobaeus of the L M Ericsson Telephone Company gave a seminar about "Satellite Communication—general development" in April, and in May M.Sc. T. Öberg gave a talk about Lerner filtering.

Planned seminars are: D. David Quarmby—Microprogrammable Electronics; Dr. A. Svärdröm—Homomorf Filtering; and Prof. Lars H. Zetterberg—Switched Capacitor Filtering.

The annual meeting was held in Uppsala with the IEEE officers and one important point which was discussed was the proposed agreement between IEEE and SER the Swedish Electrotechnical Association.

## SWITZERLAND SECTION

In its Newsletter of April 1980 the new chairman indicated plans for intensifying the Continued Education Programs in Switzerland and in particular of utilizing some of the many programs and packages supplied by the IEEE.

Beside the Chapter on Digital Communication Systems, the Swiss Section now has a new Chapter on Solid-State Devices and Circuits. The latter is co-sponsored by the IEEE Electron Device Society and by the IEEE Circuits and Systems Society. Both Chapters are very active. The Chapter on Digital Communications is busily preparing for the seventh International Zurich Seminar (IZS '82) which, like its predecessors, will concentrate on selected topics in the field of Digital Communications. In the coming Seminar the emphasis will be on Man-Machine Interaction. The Seminar will take place in Zurich from the 9th to 11th March 1982. The Chapter on Solid-State Devices and Circuits, having organized a very successful Symposium on "Microelectronics in Switzerland" last fall (October 1980) in Bern, is now preparing another Symposium for the coming fall. This year's theme is "MOS Analog Circuits"; it will take place in Bern on October 22, 1981.

Another event, organized by the Swiss Federal Institute of Technology in Lausanne, but sponsored, among others, by the Swiss IEEE Section, is an International Conference on Modern Filtering Techniques. The Conference, which will be held in Lausanne (Oct. 6–8, 1981) within the framework of the annual "Journées d'Electronique", will feature contributions from Switzerland and abroad on the latest filtering and signal processing techniques.

The Student Branch of the Swiss IEEE Section is showing a healthy increase – and planning various interesting activities for the coming year. The number of members is now 96. A prize paper (by A. Krebs) that was submitted for the Student Contest to take place at MELECON '81 was selected as one of the finalists at that contest.

## UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

**Section Meeting.** A Section meeting will be held on 28th October at University of London King's College, The Strand, London WC2 (Dept. of Electronic and Electrical Engineering), when Mr. E. J. Gargini, Head of Advanced Systems Department of Rediffusion Engineering Limited, will speak on "Cable Television and Interactive Services". Tea at 1730 (room G02), lecture at 1800 (room 1B06), both in the Strand Building.

**Co-Sponsored Conferences.** It is hoped to include a list of conferences currently being co-sponsored by UKRI section, and the names of our representatives, in the next Newsletter. Any members who would be willing to serve on conference organizing committees are invited to contact Dr. A. C. Davies at The City University, Northampton Square, London EC1V 0HB, and to provide details of their specialist experience.

**Assistance from members.** we continue to ask for support, particularly from senior members in industry, both in the work of the Chapters for details see the May 1981 Newsletter, and at Section committee level (contact the Secretary, Dr. G. H. Byford, R.A.F. Institute of Aviation Medicine, Farnborough, Hants).

**Introductory course on micro-processors** arranged by the Circuits and Systems Chapter, (in association with The City University) is to be held at Portland Heights Hotel, Dorset, on 22nd–24th September, 1981. phone Miss Eileen Baker on 01-253 4399 ext. 420.

## Conference on "Multivariable and Adaptive Control Systems Theory and Applications"

This conference, arranged by the UKRI Chapter of the Control Systems Society, is to be held at the University of Hull on 19–21 July 1982. The Chairman of the Organizing Committee is Dr. Paul Taylor of the University of Hull, and of the Program Committee is Professor Derek Atherton of the University of Sussex.

Preference will be given to papers which are concerned with applications but simulations studies will be acceptable. Topics include self-tuning control, model-reference adaptive control, multivariable design, industrial applications, systems with plant uncertainties and non-linear systems.

**Chapter meetings.** Keep in touch with your Chapters, and make sure that you do belong to Societies in which you are interested, so that the information on Chapter meetings reaches you.

A joint meeting of the Educational and Professional Communication Chapters is planned for Wednesday, 25th November, on the subject of the presentation of technical papers. The place, Imperial College, London, the time 1430.

Any further offers of short contributions should be made to Mr. Brian Harrington (33 Brentwood Road, Ingrave, Brentwood, Essex, tel. 0277-218144).

## YUGOSLAVIA SECTION

**Executive Committee.** The officers of the new Executive Committee are: Chairman: Jože Furlan; Vice Chairman: Albin Wedam; Secretary: Mirko Vehovec; Treasurer: Drago Hercog.

**New Student Counsellor.** Prof. Franc Bratkovič (University of Ljubljana) is taking over from Prof. Albin Wedam as Student Counsellor.

**Membership Development.** IEEE membership is increasing and special attention is being given to the increase of student membership and activities.

**Meetings.** A one-day seminar on "Industrial automation" cosponsored by the Yugoslavia IEEE Section and Faculty of Electrical Engineering at the University of Ljubljana was held on January 17, 1981, attended by more than 80 engineers and students.

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