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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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No 63 AUGUST 1983

ELECTIONS FOR REGION 8 – VICE-CHAIRMAN

BIOGRAPHICAL NOTE



Basil W. Osborne

After receiving the BSc (Special), of the University of London, Mr. Osborne was with the National Physical Laboratory (Slough, Division England). 1947-52. He established the Singapore ionospheric station in 1948, obtained MSc., and was Lecturer at the University of Malaya, 1952-54. Following colour television research with Ultra Electric in London and with Owen Harries (Consultants) in Bermuda, in 1958 he joined Rediffusion Research in England, working on television K-rating, radio propagation and cable specifications.

In the USA from 1968 (Director of Engineering at Telemet in 1969) he

returned to cable television with Rediffusion Engineering in 1970. The author of a book on colour television, and contributor on the ionosphere to another, he has written 24 papers on subjects including ionospheric electron content, the equatorial ionosphere, radio propagation, television picture quality, transversal equalizers, demodulator design, signal-to-noise ratios, the electromagnetic compatibility of h.f.

cable networks, and engineering audits. He has served on Advisory Committees on Radio Interference, on the electronics group committee of the Institute of Physics, and on conference organizing committees on television (1959), television measurements (1979) and video and data recording (1976-1982).

He is currently on the management committee of the International Broadcasting Convention (1984), on the steering committee for EUROCON '84, on the technical committee of the Cable Television Association, and on the Editorial Board of Spectrum. He is Chairman of the executive committee of the United Kingdom and Republic of Ireland Section.

STATEMENT

Basil W. Osborne, MSc, FInstP, CEng, FIEE, FIERE. (Head of Operational Services Department, Rediffusion Engineering). Chairman, UKRI Section.

The substantial increase in Region 8 membership during recent years is a result of the efforts of many people, including our Region 8 Directors. To improve this growth rate further is a challenge to all of us; and if elected I would do my utmost to maintain our momentum, to promote the exchange of ideas between Sections, to obtain increased member participation, and to improve the usefulness of the IEEE to our members.

IEEE activity in Region 8 must complement that of other Institutions and Societies. The IEEE can be expected to flourish in a climate of goodwill and close collaboration with other bodies.

To remain intellectually fresh and to make the maximum individual

contribution, an engineer must be prepared to exercise his or her intelligence and to learn new disciplines. This is particularly true today. Emphasis must therefore be placed on the continuous process of the education of engineers during their careers. IEEE publications, conferences and meetings play an important part in this process.

The transnational character of the IEEE is specially evident in Region 8, and it is clear that engineering boundaries are those of knowledge, rather than of geography or politics.

BIOGRAPHICAL NOTE



Emmanuel N. Protonotarios

Emmanuel N. Protonotarios (S'64-M'66-SM'73) was born in Greece in 1940. He received the Mechanical-Electrical Engineer's degree (with the highest honours) from the National Technical University of Athens in 1963. He was then awarded a Fulbright Travel Grant and attended Columbia University in New York, where he received his doctorate in 1966

From 1963 to 1965 he was a Higgins and Boese fellow and from 1965 to 1966 a Graduate Research Assistant at Columbia University.

From 1966 to 1968 he was a Member of the Technical Staff at Bell Laboratories,

Holmdel, NJ, working on digital communication systems. He was Assistant Professor of Electrical Engineering at Columbia University from 1968 to 1970, a Visiting Professor, University of Patras, from 1970 to 1972, and an Associate Professor of Electrical Engineering, Columbia University, from 1972 to 1973. Since 1973 he has been a Professor of Electrical Engineering at the National Technical University of Athens. His major research interests are in the areas of data networks, digital signal processing, and communication systems.

Dr. Protonotarios is a member of the Technical Chamber of Greece and Sigma Xi. Professor Protonotarios is now Vice Rector of the National Technical University of Athens.

Dr. Protonotarios, Senior Member of IEEE, has participated actively in IEEE regional and technical activities. He has been Student Counselor for many years. He had been IEEE Greece Section Chairman for two terms (four years) from 1978 to 1982. He has served in a number of functions within the Greece Section IEEE Committee. He was Technical Program Chairman for the Conference MELECON '81. He was the Chairman of the Steering Committee and the Organizing Committee for the very successful 1983 Mediterranean Electrotechnical Conference (MELECON '83), which was held last May in Athens. He participated in the Committees of many other IEEE Conferences.

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STATEMENT

Emmanuel N. Protonotarios. (Professor of Electrical Engineering and Vice Rector, National Technical University of Athens, Greece). Chairman, Greece Section.

Region 8 encompasses countries with different languages, religions, political and educational systems, and cultural backgrounds. The Regional Director must show great respect for these differences and try to enhance the transnational role of IEEE. The Institute's strength is derived from its stature as an international technical organization and learned society. Therefore, our role as a technical society of great excellence must be maintained.

If elected I would like to work hard towards the following specific goals within the area of responsibility of the Region 8 Director.

- Promote the exchange of technical information and co-operation among Region 8 IEEE Members by strengthening conferences and meetings, such as MELECON, EUROCON and AFRICON.
- Emphasize, with all available means, the contribution of our profession in society by making the public aware of our achievements.
- Promote the co-operation between IEEE and national EE societies by organizing joint activities and common resolutions on the impact of Electronics, Electrotechnology and Computers.
- 4. Promote student activities.
- 5. Strengthen the financial well-being of the IEEE Region 8.
- 6. Representing the members well in the Board of Directors and stengthening the transnational character of IEEE.

IEEE OTHER ELECTIONS

The three candidates for President Elect have sent special messages to members in Region 8 and these are printed on page 4 of this newsletter. Other important elections are also being held within the next few months, full statements from candidates for the post of Executive Vice-

President will be carried in the August issue of "The Institute". Members in Region 8 are urged to read all these statements as well as those which will accompany the ballot papers. Remember to vote and vote early.

7th DECEMBER '83 - AFRICON '83 - 9th DECEMBER '83

THE KENYATTA CONFERENCE CENTRE, NAIROBI, KENYA



Mr. Philip Okundi, Deputy Managing Director of Kenya Posts and Telecoms will be the General Chairman of AFRICON '83, to be held in Nairobi on 7-9 December 1983. From right to left: D. D. Patel, Chairman of IEEE Kenya Section and Chairman of AFRICON '83 Steering Committee; Mr. P. Okundi; Dr. J. Baal-Schem, Regional Conference Co-ordinator and member of AFRICON '83 CSC.

The number of papers offered for AFRICON '83 reached the unexpectedly high total of 85 at the end of June. Over half the papers received are on the subject of electrical power, and about one-quarter are on the subject of communications. Amongst the other subjects are education and training, solar energy, and computers.

Offers of papers have been received from 18 countries, including 31 from Egypt, 14 from the USA, and 11 from Kenya. Among the other countries from which papers have been received are Brazil, India, Iran, Nigeria, and Roumania.

AFRICON '83 will be held in the Kenyatta International Conference Centre, Nairobi, Kenya, on 7-9 December 1983. It provides an unrivalled opportunity for understanding the electrotechnical problems in developing countries, and the manner in which they are being solved. The program is of particular interest to those concerned with technical developments in developing countries, and with marketing to developing countries.

The deadline for receiving papers has been extended. Papers will be considered for inclusion in the program if they are received before 15 September by Professor W. E. Proebster, IBM Deutschland GmbH, Dept. 3280, 7030-15, Schoenaicher Strasse 220, 7030 Boeblingen, Federal Republic of Germany.

The theme of AFRICON '83 is meeting the needs of African countries in electrical technology which are foreseen during the next five to ten years. The Plenary Opening Session will consist of lectures on 'Capital Telecommunications Development in Kenya and Africa' by Mr. Philip Okundi, Deputy Managing Director of the Kenya Posts and Tele-

communication Corporation and Conference Chairman; 'World Energy Sources' by IEEE President, Jim Owens; 'The Development of the Panaftel Network' by Mr. Gabriel Tedros; 'Power Development in Kenya and Africa' by Mr. H. S. Jabbal.

The majority of Conference papers will be presented in two parallel sessions which will cover: National Power System Planning and Development; National Telecommunications System Planning and Development; Rural Telecommunication; Electrical Systems Applications in Industry; Solar and Alternative Power Applications; Computers; Developments in Electron Devices and Circuits.

The Plenary Closing Session will highlight developments in electrical and electronics engineering in Africa. One of the plenary sessions will include lectures commemorating the IEEE Centennial.

The papers offered are very relevant to the wide scope of AFRICON '83 as the following samples illustrate: 'Video and Voice Broadcast to Rural Areas over Narrow-band Satellite Channels' (A. P. Verlijsdonk (Netherlands) and S. H. Meney (Tanzania)); 'Cable Communication for Developing Countries' (H. Murata, T. Namiki, A. Fineta, T. Ueki (Japan)); 'Prospects for Optical Fiber Applications in Telecommunications in Africa' (C. B. Chongo (USA)); 'Education and Infrastructure Considerations for Developing Countries' (B. Raz (Israel)); 'The Heavy Duty Industrial Gas Turbine – an Option for Power Generation in Developing Countries' (A. Sim (UK)); 'Electrification Planning and Choice of Appropriate Electrical Technologies in Developing Countries' (G. Cafaro, B. Maione, P. Pugliese (Italy)); 'Sun Tracking of a Photovoltaic Array using a Microcomputer' (Y. B. Bahnas (Egypt)). In addition we anticipate papers on the aerospace exploration of natural resources.

AFRICON '83 is very strongly supported throughout the IEEE. Never before has a conference in the Region received support from so many IEEE Societies – the following are sponsors: the Aerospace and Electronic Systems Society; the Society for Communications; the Electron Devices Society; the Society for Industrial Applications; the Society for Power Engineering.

An Exhibition will be held in the Conference Centre at the same time as the Conference; equipment, services, and techniques applicable to the needs of developing countries will be on display. Space can be reserved through the IEEE Kenya Section, PO Box 49385, Nairobi, Kenya.

The Conference Social Program includes a Cocktail Reception Party for participants and guests at the Nairobi Hilton on 7 December, visits for accompanying persons during the Conference, and safari tours at reduced rates after the Conference.

Registration Fees are as follows: if received before 1 November – IEEE Members \$40, non-Members \$50; if received after 1 November – Members \$50, non-Members \$60; students \$5; Life Members \$10. Cheques should be made payable to 'AFRICON'83' and IEEE Members should quote their membership number.

Further information, Registration Forms, and copies of the Program, are available from Mrs. R. Mischler, IBM Research Laboratory, Saumerstrasse 4, CH-8803 Rueschlikon, Switzerland, telephone 01 724 2727, telex 53-626.

New Books in CAD/CAM

Surfaces in Computer Aided Geometric Design

Proceedings of a conference held at the Mathematisches Forschungsinstitut Oberwolfach, F.R.G., April 25-30, 1982

edited by R.E. BARNHILL and W. BOEHM

1983 xvi + 216 pages Price: US \$46.75/Dfl. 110.00 ISBN 0-444-86550-0

This subject has a wide range of applications such as the design of cars, planes, ships, bottles and other everyday objects. The design of such free form surfaces is the research part of the subject.

Main features of this work are:

- Currently developed schemes for forming smooth surfaces
- Representation of new algorithms and new research results
- Applications of surfaces in the car, plane and ship industries

Advances in CAD/CAM

Proceedings of the 5th International IFIP/IFAC Conference on Programming Research and Operations Logistics in Advanced Manufacturing Technology, PROLOMAT 82, Leningrad, USSR, 16-18 May, 1982

edited by T.M.R. ELLIS and O.I. SEMENKOV

1983 xviii + 720 pages Price: US \$76.50/Dfl. 180.00 ISBN 0-444-86549-7

This book contains the full texts of the 57 papers, divided into five sessions, presented by authors from 15 countries, together with a record of the discussion that followed their presentation. In addition, it contains two invited papers by six of the world's leading experts, which review the current state of advanced manufacturing systems and the design concepts for CAD/CAM in the engineering industries.

The fields covered include geometric modelling, computeraided process planning, integrated CAD/CAM systems, artificial intelligence techniques, CNC and graphic systems, and future trends in CAD/CAM.

CONTENTS: Invited Papers: Advanced manufacturing systems in modern society (J. Hatvany, O. Bjørke, M.E. Merchant, O.I. Semenkov and H. Yoshikawa); Design concepts of CAD/CAM systems in engineering industries (Y.M. Solomentsev).

CAD Systems Framework

Proceedings of the WG 5.2 Working Conference on CAD Systems Framework held in Røros, 15-17 June 1982

edited by K. BØ, and F. M. LILLEHAGEN

1983 x + 342 pages Price: US \$49.00/Dfl. 115.00 ISBN 0-444-866034-3

This book, CAD Systems Framework, is a synthesis based on the experiences from earlier conferences, and is organized in six major areas. Each presentation is followed by a discussion. For each of the areas international experts discuss the state-of-the-art and new aspects of modern CAD systems design, based on design theory, frameworks and well-defined modules.

CONTENTS: 1. Classification of CAD-Systems. II. Framework Concepts. III. Geometric Modelling. IV. The Designer/CAD-Systems Interface. V. Conceptual Design of CAD Systems.VI. Artificial Intelligence and Knowledge Databases in CAD.

Computer Applications in Production and Engineering

Proceedings of the First International IFIP Conference on Computer Applications in Production and Engineering, CAPE '83, Amsterdam, The Netherlands, 25-28 April, 1983 edited by E. A. WARMAN

1983 xxxii + 1116 pages Price: US \$95.00/Dfl. 240.00 ISBN 0-444-86614-0

This work considers all aspects of computer applications - from design through to manufacture. The issues addressed relate to simulation, robotics, education, artificial intelligence and production control. This is the first time ever that the complete and total issues relating to the application of computers to the entire industrial process have been brought together in a unified context.

Industrial Robots/Robots 7

in 2 Volumes

Proceedings of the 13th International Symposium on Industrial Robots / Robots 7 Conference, held in Chicago, IL, USA, 17-21 April, 1983

Volume 1: Applications Worldwide 1983 990 pages ISBN 0-444-86648-5

Volume 2: Future Directions 1983 910 pages ISBN 0-444-86649-3

Price of each volume: Dfl. 200.00/US \$59.00

With the theme "Robotics: The Emerging Challenge", the combined 13th ISIR / Robots 7 Conference and Exposition turned out to be the largest gathering ever assembled for the purpose of exchanging robotic technology. It reflects the present industrial movement towards the application of robotics and programmable manipulators.

Primary sponsors were Robotics International of the Society

of Manufacturing Engineers (RI/SME) and the Robot Institute of America (RIA).

The Conference program consisted of technical presentations by more than 80 robotics experts from around the world. In addition to these technical presentations, special forums were held on Robotic Education, Department of Defense Applications, Robot Design, and Aerospace Applications and Requirements.

These two volumes, both fully illustrated, form a valuable compendium of new robotics applications and emerging technology.

Robots at Work

A practical guide for engineers and managers

by J. HARTLEY

1983 viii + 192 pages Price: US \$39.00/Dfl. 110.00 ISBN 0-444-86638-8

Based in Japan, John Hartley assesses the international scene and answers the questions which production engineers and managers are most likely to ask. The book begins by briefly introducing robots and their types before moving on to the more important area of their cost effectiveness and the five major areas of application: spot welding, handling, arc welding, spraying and assembling.

Detailed case studies are included - of special interest is the applications information relating to productivity, cycle time and manning levels.

From the application of robots Hartley moves on to new areas of involvement including sensing, and the interlinking of robots to Flexible Manufacturing Systems - FMS. He also examines product design for robot manufacture and robot safety.

CONTENTS: Chapters: 1. Why robots?. 2. Robot types evolution from a universal position. 3. Development in controls. 4. How cost-effective are robots?. 5. Spot Welding - the first major use. 6. Handling. 7. Arc Welding. 8. Spraying. 9. Assembly - the biggest challenge. 10. Future sensing for assembly - and other jobs. 11. The multitude of miscellaneous jobs. 12. Robot trolleys. 13. Product design for robot manufacture. 14. Safety. 15. Flexible manufacturing systems (FMS). 16. Where are robots taking us? Bibliography and References. Index.

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REPORT FROM THE REGIONAL DIRECTOR



Karsten E. Drangeid Director Region 8 1983-84

Technology appeared as an important issue during our successful MELECON '83 Conference in Athens. During a Panel discussion it became clear that our Institute can play a major role in the organisation of meetings, workshops, and conferences at which electrical engineers can exchange information, discuss problems, and keep themselves up-to-date.

Another way we can help is through the Region 8 Continuing Education Program organised by Professor K. F. Goser, which offers a variety of member services. I am certain that there are members in the Region who can benefit from our Continuing Education Program, and Professor Goser has written a special article for this

Newsletter giving a brief outline of services available.

One of the agenda items at the Region 8 Committee Meeting in Athens at the end of May was the difficulty encountered in forming a Section in some countries with few members. It can be very difficult or impossible to obtain the 50 signatures necessary for a petition to form a Section, although once a Section has been formed membership increases rapidly.

The Committee approved a proposal allowing countries with few members to initially form a 'Section-in-Development', under a simplified procedure not requiring a petition. Within three years of its formation a Section-in-Development would have to become a Section in

accordance with the normal IEEE procedure, or be disbanded. I would welcome hearing from members who would be prepared to organise a 'Section-in-Development'.

Another decision taken at our Athens Committee Meeting was to establish the position of Vice-Chairman. A Vice-Chairman will be elected by members in Region 8; the person elected will become a member of the Region 8 Committee and will serve for one year before becoming Director for the following two years.

The purpose of establishing the position of Vice-Chairman is to provide future Region 8 Directors with at least one year in which to obtain experience of the Director's work, instead of possibly commencing with very little background. This will provide better continuity and greatly reduce the time which a new Director requires to become familiar with his responsibilities.

The first election for Vice-Chairman will take place in the autumn of this year, and you will receive ballot papers from Headquarters. We are fortunate in having two very experienced candidates, Mr. B. W. Osborne and Professor E. N. Protonotarios. You will find their election statements in this Newsletter

Because of the continuing expansion in all branches of electrical, electronics, and computer engineering and science, two additional Directors have been appointed to the Board of Directors. A Division is composed of one or more of the IEEE Societies, and this change in the constitution of the Board of Directors will give increased representation to our Institute's technical activities at the highest level.

KARSTEN E. DRANGEID Rueschlikon, Switzerland

ELECTIONS FOR PRESIDENT-ELECT SPECIAL CANDIDATE'S STATEMENTS FOR REGION 8

Statement by Hans C. Cherney

As Vice-President of Regional Activities in 1982 I visited a number of Region 8 Sections and attended a Region 8 Committee Meeting. This gave me the opportunity to become familiar with the issues faced by our membership across the Atlantic. As Vice-President I also assisted in the formation of the Portugal and Kenya sections in Region 8.

Because the professional needs of the members in Region 8 are usually addressed by the respective national societies, the interest of Region 8 members is focussed on the technical and educational areas. Improving communication channels, support of student activities in Region 8,

timely delivery of our publications to our transnational members and continued co-operation with the national societies must become matters of first priority in the IEEE. In addition, I think that our transnational members who excel in their respective fields do not receive the proper recognition they deserve. The IEEE should provide that international recognition for its outstanding members outside the USA.

Region 8 has grown at a much faster rate than the Institute as a whole. If elected I pledge to give the Transnational Regions the attention and support to continue that growth.

Statement by Jerrier Haddad

First and foremost, I believe that the fact that the IEEE is a transnational society is extremely important. As professionals and as members of the IEEE, each of us stands on the shoulders of our fellow members. Each of us grows intellectually as the other grows. Progress by one is progress for all. We benefit each other and thereby benefit ourselves. This is the prime purpose of a professional society and must never be compromised.

For this reason I believe very strongly that the IEEE should not allow itself to become a Guild or a Union. We must guard against the IEEE becoming more of a political or economic organization. We need to add to each other's knowledge and ability as much as we can, regardless of where we reside.

The IEEE should seek greater participation of local members when holding technical conferences. Specifically, Region 8 members should have greater involvement in organizing and running technical confer-

transport facilities are such that there is little or no burden to this. If we take this direction, we can expect more meaningful participation of Region 8 members, and all of us will benefit. Along this line it is also incumbent on us to work out an economically

ences, especially in their own Region. Modern communication and

acceptable scheme that will allow more timely delivery of institute publications in Region 8. While I know that much thought has already been given to this problem, the solution is not yet at hand, and I believe we should redouble our efforts to get a good answer.

Lastly, I believe that every practising electrical engineer should find it advantageous to be an active member of the IEEE. To the degree that the IEEE does not seem worthwhile to significant numbers of engineers, regardless of location, we obviously are somehow missing the mark. I believe we must continue to make the IEEE a more vital force in the life of each electrical engineer. Region 8 should have much to contribute in this. I look forward to finding ways to increase its contribution.

Statement by Donald D. King

Bringing Region 8 closer to the centre of IEEE activities requires a continuing effort. I shall seek improvement in several key aspects.

- 1. More timely delivery of publications. I served for three years as editor of the IEEE Transactions on MTT. I believe we must use faster delivery means for our readers, and also expedite reviews for our authors.
- 2. Selection of locations for IEEE co-sponsored conferences in Region 8. I have worked on committees for international conferences, and value the effects of a different environment and multi-national attendance.

3. More participation of Region 8 members on IEEE committees and boards. We must strive to facilitate the travel which makes this possible. 4. Close relations with technical societies in Region 8 countries. As part of my work for the past 15 years, I have had frequent visits with colleagues in Europe. From my experience in university teaching and industrial research, I have a keen appreciation of the accomplishments of engineers in Region 8.

The President of the IEEE is elected by all the members. I know the Atlantic is no barrier to co-operation and friendship, and I expect to represent the membership of Region 8.

REGION 8 MEETING - ATHENS

The 41st Meeting of the Region 8 Committee took place on 27-28 May 1983 at Athens, Greece under the Chairmanship of Karsten E. Drangeid – Director, Region 8.

Amongst Officers and staff from IEEE in attendance were: James B. Owens – President; Merrill W. Buckley – Vice-President and Chairman, Regional Activities Board; Eric Herz – General Manager; Don Christiansen – Editor, Spectrum; H. Friedrich – Electron Devices Society;

M. Urien - Communication Society.

The meeting covered the progress and development of all the various activities in the Region as well as methods of improving services to members. A brief outline of some of the matters discussed is given below and specific items of major importance are dealt with under separate headings elsewhere in this Newsletter.

REGION 8 MEETING Continued

Appointments

Dr. R. Remshardt has been appointed Treasurer of Region 8 in place of Dr. Herbert May who has stepped down because of pressure of work. The Committee expressed their warm appreciation to Dr. May for his excellent work which has contributed so much to the good financial standing of the Region.

Professor Vander-Vorst announced that having served as Chairman of the Students Activities for five years he felt it was time to retire and he will be replaced by D. C. J. Poortvliet. Professor Laloux has been appointed Vice-Chairman. In recognition of his outstanding achievements in this field Prof. Vander-Vorst was presented with a certificate of appreciation by the President, James B. Owens.

Electron Devices Society (ED)

The Electron Devices Society is hoping to establish a Joint Chapter in certain sections of Western Europe and it is hoped by the Region 8 Committee that this will strengthen relations between itself and the EDS as well as increasing the number of technical conferences within the Region.

Communications Society (COM)

The CS in conjunction with the European, African and Middle East Committee (EAMAC) has invited increased co-operation by Region 8 in ICC (International Conference on Communications). The Committee was in favour of this as the conference is sponsored by the Region which has a representative on the steering committee.

It was reported that there was a growing problem with the international transfer of money from certain countries with currency laws which result in 'blocked accounts'. The Committee asked the Director to discuss this matter with Headquarters and investigate with them possible methods of making use of such money.

It is a well-known fact that IEEE Region 8

has a high percentage of skilled scientists

and engineers among its members. There-

fore a good number of Institute Awards

ought to be given to Region 8 members

every year. But the candidates have to be

nominated. I suggest that you contact

your Section Chairman who can lend you

a copy of the IEEE Awards Guide, a yellow

brochure, that tells you the exact proce-

dure of nominating and also gives you a

good description of the different types of

Institute Awards existing. Please remem-

ber that some awards may be given to

non-members. Details of the Medal of Honor and the Major Annual Medals are

given below and information on other

awards will be carried in the next news-

Future Conference Plans

The following plans (subject to confirmation) for future IEEE Region 8 Sponsored Conferences were announced:

- Probably to be held in Egypt. AFRICON '85

- Planned for May '85 - to be held in Madrid. MELECON'85 - Planned for Spring '86 - to be held in France. EUROCON'86

MELECON'87 - To be held in Italy.

MELECON'89 - Possibly to be held in Portugal.

Membership Development

It was reported that a high percentage of Student Members were not remaining in the Institute after graduation. The main reason for this is difficulty in keeping in contact with them when they move from the address (usually university student accommodation) on the computer files. One possible solution is to ask all students to supply a second more permanent address (such as parents' home) through which they can be contacted.

Other Matters

See separate headings in this Newsletter for special reports on: MELECON '83; AFRICON '83; CONTINUING EDUCATION; STUDENT ACTIVITIES: ELECTIONS.

> **GRETTA GOURIET** Assistant Production Editor

IEEE AWARDS



E. Folke Bolinder Chairman, Awards & Fellows, Region 8

letter.

1. Medal of Honor

This is the Institute equivalent of a Nobel Prize. It shall be awarded for a particular contribution which forms a clearly exceptional addition to the science and technology of concern to the Institute. The award shall normally be given within a few years after the recognition of the exceptional nature of such contribution. It can be awarded to an individual outside the institute, when warranted. Nominations must be received by the Awards Board by 1 June (with supporting letters).

2. Major Annual Medals

The medals are only given to members of IEEE.

Alexander Graham Bell Medal - For exceptional contribution to the advancement of telecommunications.

Edison Medal - For a career of meritorious achievement in electrical science or electrical engineering or the electrical arts.

Founders Medal - For major contributions in the leadership, planning and administration of affairs of great value to the electrical and electronics engineering profession.

Lamme Medal - For meritorious achievement in the development of electrical or electronic apparatus or systems.

IEEE Education Medal - For excellence in teaching and ability to inspire students; leadership in electrical engineering education through publication of textbooks and writings on engineering education; innovations in curricula and teaching methodology; contributions to the teaching and engineering profession through research, engineering achievements, technical papers and participation in the education activities of professional societies.

Simon Ramo Medal - For significant achievement in systems engineering and systems science as evidenced by some major engineering contributions or for technical leadership in a major innovative engineering project within the scope of IEEE.

Nominations must be received by the Awards Board by 1 June (with supporting letters).

> E. FOLKE BOLINDER Chairman, Awards and Fellows Region 8

STUDENT NEWS

The 1983 Region 8 Undergraduate Student Paper Contest was held on 26 May in Athens, Greece on the occasion of MELECON '83.

Nine papers were submitted at the end of last January. They were from Delft, Eindhoven and Louvain-la-Neuve (Benelux), Helsinki (Finland), Haifa (Israel), Madrid (Spain), Zurich (Switzerland), UKRI and West Germany

The jury, international as usual, was composed of Prof. Bolinder (Göteborg, Sweden), Prof. Halkias (Athens, Greece), Mr. Poortvliet (The Hague, Benelux), Prof. Richter (Graz, Austria) and Prof. Tzafestas (Patras, Greece). The members of the jury first made a selection of five papers and the authors were invited to present their paper orally in Athens at the expense of Region 8. However, the jury said that this year the standard of all the papers was exceptionally high and it was therefore a particularly difficult task to select the best papers. Also the oral presentations were all excellent.

A decision, however had to be made in Athens. The jury decided to give the first prize to the paper 'A dynamic Boolean Algebra' by P. Miller, Hull University - UKRI, the second prize to the paper 'Hierarchical Image Transmission' by C. Muñoz, and A. Sanz, ESIT - Madrid, Spain and the third prize to the paper 'Design of a Totally Self-Checking Arithmetic and Logic Unit'. UCL – Louvain-la-Neuve, Belgium. The three winning papers will be published in the IEEE 1983 Student Papers book.

As announced, money prizes have also been granted from the IEEE Life Member Fund (\$300, \$150 and \$75 respectively) to the three winners with an additional amount of \$300 to the first winner, from the Region 8 Student Activities budget, to help him in organizing a trip to the USA. The contest was very enjoyable, the papers were of a high quality and

the presentations were excellent. The Branches should not forget to prepare for participation in the 1984 contest.

Professor A. VANDER-VORST SAC Chairman

CONTINUING EDUCATION IN REGION 8



Dr. Karl Goser Continuing Education, Region 8

The IEEE Continuing Education Programs cover a wide range of subject matter and are offered worldwide in a variety of presentation modes. The IEEE Service Center offers short courses of one-tothree days duration, packed courses for local instruction and video-taped courses. In the past the low-cost packaged short courses were a great success and can be recommended strongly to sections, chapters and student branches. In addition the members can select from a number of individualized self-taught home-study courses. The office of Region 8 may be able to assist sections and members in their arrangements.

In addition the following possibilities can be offered to you:

(a) High-Level Speakers on the following subjects: 'VLSI and Large Systems'; 'Fundamental Limits in Digital Information Processing'; 'High Performance Cooling and LSI'; and 'Control of Power Systems'.

(b) Tutorials covering: 'Office Automation'; 'New Communication Services'; 'Text Processing'; 'Integrated Circuit Design'; 'MOS-VLSI Design (Mead-Conway Method)'; 'Microprocessor System Design'; 'Cable'; 'Design of Bipolar and MOS-Circuits'; 'Digital Signal Processing'; and 'Praxis der Großintegration'.

(c) Tutorial Books: At the Hanover Fair '83 eight tutorials were held by outstanding speakers. We can offer the tutorial books with about 100 pages to you; these books include valuable material for presentations.

 'Office Automation Systems'. Instructor: Prof. Dr. S. Bing Yao, Database Systems Research Center, University of Maryland.

- 'Advanced Topics in Computer Graphics with Applications in CAD/CAM'. Instructor: Prof. Dr. J. Encarnacao, Institut fuer Informationsverwaltung und Interaktive Systeme, Technische Hochschule Darmstadt.
- 3. 'Local-area Networks: Architecture, Technology, and Applications'. Instructor: Dr. Martin Reiser, IBM Zurich Research Laboratory.
- 'Process and Numerical Control' (German language only). Instructor: Prof. Dr. R. Lauber, Institut fuer Regelungstechnik, Universityror of Stuttgart.
- 'Robotics: Electronic Control Systems'. Instructor: Dr. John F. Cassidy, Jr., General Electric Company.
- 'Microcomputer Design Tools and Applications'. Instructor: Prof. Dr. Tom Cain, Electrical Engineering Department, University of Pittsburgh.
- 'Design and trends in Home Information Systems'. Instructor: Dr. Jacob Baal-Schem, Tel Aviv University.
- 8. 'Personal Desktop Computer Market'. Instructors: Dr. Portia Isaacson and Dr. Egil Juliussen, Future Computing, Inc.

Each Tutorial Book costs 10 US\$, postage included. Mail Order with Payment in US\$ to my office of CE of IEEE Region 8 (see below).

In Region 8 we also coordinate what is known as the Travelling Instructor Scheme. Engineers having specific information or experience of interest and travelling outside their home Sections, especially to US, are requested to notify myself of their travel programme. This information is then circulated to the relevant Section to see if a lecture or a course may be organized.

For organizing and coordinating the activities of Continuing Education in Region 8. I need some support; therefore it is most important that there are representatives for Continuing Education in each section.

For further information please contact the office of CE of Prof. Dr. Karl Goser, Fern Universitaet, Bauelemente der Elektrotechnik, POB 940, D-5800 Hagen 1, West Germany.

MEETINGS IN REGION 8

ECCTD'83

The final programme for ECCTD '83, Sixth European Conference on Circuit Theory and Design, 6-9 September 1983, University of Stuttgart, Federal Republic of Germany, is now available from: German Section of IEEE, Stresemannallee 15, VDE-Haus, D-6000 Frankfurt 70, Tel: (+611) 6308-221.

International Carnahan Conference on Security Technology

The programme for this Carnahan Conference in Zurich, 4-6 October 1983, is now available from: ETH Zentrum-KT, CH-8092 Zurich, Switzerland.

Antennes Embarquees pour Telecommunications Spatiales

This second meeting on antennae, to be held 16-17 November 1983, in Nice, France, is organized by: Le CNET, PAB Centre de la Turbie (J. L. Guiraud); La SEE, Groupe Sud-Est Mediterranee, Sous-Groupe de Nice – President, R. Mainguy (EDF); Section 22 (Telecommunications-Radiodiffusion-Television-Propagation) – President, D. Lombard (CNET-PAB); Section 25 (Ondes et Signaux) – President, F. Molinet (Mothesim); Et Patronnees par, La Section Francaise de L'IEEE – President, L. J. Libois; Renseignements: S'Adresser A M. J. L. Guiraud, CNET-PAB, Centre de la Turbie, 06320 CAP D'AIL, Telephone: (93) 41.17.17, Poste 353

26th Israel Annual Conference on Aviation and Astronautics

This conference is held in co-operation with the Israel Chapter of IEEE. It will take place on 8 February 1984 in Tel Aviv and on 9 February 1984 in Haifa, Israel.

The conference programme will include invited lectures and contributed papers in the subjects of Aerodynamics and Aerodynamic Testing, Materials, Aeronautical Structures and Structural Testing, Structural Dynamics and Aeroelasticity, Aeronautical Design, CAD/CAM, Manufacturing and Maintenance, Propulsion and Combustion, Flight Control, Guidance and Navigation, Avionics, Flight Mechanics and Ballistics, Flight Operations and Systems and Astronautics. Papers are invited on recent advances in basic research and in technology applications in the above mentioned categories as well as other aerospace related fields.

Accepted papers will be published in the Conference Proceedings and as a special issue of the Israel Journal of Technology. Authors who wish to reserve their rights to publish their papers in other journals should notify the chairman of the Editorial Committee accordingly.

Abstracts of 1000 to 1500 words should be submitted in triplicate and should reach the Editorial Committee Chairman by 2 October 1983. Further details from: Prof. I. Y. Bar-Itzhack, Organizing Committee, Twenty-Sixth Israel Annual Conference on Aviation and Astronautics, c/o Department of Aeronautical Engineering, Technion – Israel Institute of Technology, Haifa, 32000, Israel.

International Joint Alpine Symposium, Innsbruck, Austria. 11-15 February 1984

The symposium is sponsored by the Foundation for Advanced Medical Display Technology and the Special Interest Group on Medical Computer Graphics (MEDGRAPH) of the IEEE Computer Society's Technical Committee on Computational Medicine. Participating and co-operating societies include IEEE Region 8, Deutsche Sektion Des Institute of Electrical and Electronic Engineers.

The engineering programme of this joint symposium will emphasize innovative research and applications, and will consist of contributions and invited papers, workshops and panels, covering the state of the art, work in progress, critical issues, and research initiatives. Papers are solicited on all aspects of digital medical imaging: Medical computer graphics systems and techniques; Image restoration, enhancement, filtering; Image analysis; Medical structure modeling; Prosthesis planning and manufacturing; Surgical planning/control; Image archiving; Image communications; Image presentation systems.

Prospective authors and panelists should submit four copies of abstracts, 200-500 words, and include six key words that best characterize the paper, plus a short statement indicating its chief contribution or its biomedical impact. Also indicate the approximate length (long – 10 pages maximum, 30 minutes; Short – 5 pages maximum, 15 minutes). Papers will be published by the Computer Society Press in the Conference Proceedings. Authors' kits for typing camera-ready manuscripts will accompany notification of acceptance. Timetable: ABSTRACT due 1 October 1983; NOTIFICATION and

Timetable: ABSTRACT due 1 October 1983; NOTIFICATION and authors' kits mailed 1 November 1983; CAMERA-READY MANUSCRIPTS due 15 December 1983.

Submissions should be sent to either: Michael L. Rhodes, PhD, Co-Chairman 1984 Alpine Symposium, 2730 Pacific Coast Highway, Torrance, California 90505; Professor Dr. Heinz U. Lemke, Ph.D., Technische Universitat Berlin, Fachbereich 20 Informatik, Sekr CG FR 3-3, Franklinstrasse 28/29, D-1000 Berlin 10 F.R. Germany.

EUROCON '84, ENGLAND - 26-28 September 1984

The Brighton Centre, venue for the EUROCON 1984 Conference on 'Computers in Communication and Control', is within 40km of London's Gatwick airport, with a direct rail link from the airport to Brighton, and is in easy travelling distance from the car ferry ports of Portsmouth, Newhaven, Southampton and Dover for those coming by road. The Conference theme is 'Computers in Communication and Control'. Further information can be had from: The Manager, Conference Services, IEE, Savoy Place, London WC2R OBL, England.

NEWS OF THE SECTIONS

UKRI SECTION, (Chairman: Mr. B. W. Osborne)

Plans for the Centennial year 1984. On Monday 1 October 1984 Dr. H. B. G. Casimir will give a Centennial lecture. At the invitation of the IEE, this will be at Savoy Place, London. The Presidents (in 1984) of the IEEE and of the IEE will also speak. Full details later.

Nineteen-eighty-four will mark the first EUROCON to be held in England, and it is appropriate that this should coincide with the Centennial of the IEEE.

On 29 September 1984, the day following EUROCON, the UKRI Section Committee will entertain Region 8 and other eminent visitors. The Annual General Meeting of UKRI Section in March 1984 will be followed by a reception and buffet for our members. Look out for the

meeting notice.

Membership Development. We had set ourselves a target of 2000, to be reached by 1984. This level was first attained in December 1982, albeit temporarily as some members are now listed as being in arrears with subscriptions and our total (latest information) is 1979. With your help we will break the 2000 barrier. Ample supplies of membership leaflets and application forms are available from Mr. M. A. Giddings (055253322)

There will be IEEE stands at EUROCON as well as at IBC '84.

Annual General Meeting. The AGM held at Imperial College on 24 March 1983 was followed by an Education Chapter meeting, at which Prof. Elton spoke on 'Value for money in engineering laboratory training'; and by a buffet supper for all members present.

New Chapter of the Computer Society. A Computer Chapter is now formed in our Section. Mr. R. J. Saam was elected Chairman at the first meeting held on 23 June 1983. Any members wishing to take part in the work of the Chapter, or to offer to speak, please contact Mr. Saam on 01 370 5215, his address is 149 Gloucester Road, London SW7. With nearly 600 Computer Society members in our Section, this Chapter should receive good support.

Student paper competition. For the first time, the top prize in the IEEE contest has gone to an entry from UKRI Section. Congratulations to Mr. P. J. Miller, recently at the University of Hull, who won at Athens in May

Meetings with IEEE President. The President, Dr. James Owens, together with Executive Director, Mr. Eric Herz, met with Section officers in London on 14 May 1983, and with the IEE on 16 May.

Republic of Ireland. Please note that Dr. James Christie, of University College Dublin, now serves on the Section committee, Encouragement is being given to membership growth, and it is hoped to start a student branch, and if desired by our members a sub-section could be formed.

Dates for your diary. On 9 November at King's College, London at 1800hr. (tea 1730hr.) there will be an ED Chapter meeting at which Geoff Beuret, Director of the 'Goals of Engineering Education project' at Leicester Polytechnic, will speak on Broadening the scope of engineering education. A Section committee meeting will be held earlier that

A CS Chapter meeting in November on Robotics will be held at GEC Electrical Projects, Rugby, and will include a tour of the laboratories. Details from Dr. Ian Postlethwaite on 0865 56747.

On 6 January 1984 there will be a CS all-day meeting on the Use of control theory in economic systems, at Imperial College, London. The CS AGM will be at the Control Theory Centre, University of Warwick in April 1984.

ISRAEL SECTION (Chairman: I. Ish-Hurvitz)

The 13th Convention of Electrical and Electronics Engineers in Israel was held at the Tel Aviv Fairgrounds on 22-24 March 1983, with an attendance of over 1500 engineers. This convention is the main professional event for electrical and electronics engineers here and is organized biennially by the Israel Section of the IEEE.

The opening session was addressed by Mr. M. Zippori, Minister of Communications; Prof. A. Lavi, Chief Scientist of the Ministry of Industry and Commerce; Mr. U. Stock, Chairman of the Association of Engineers and Architects in Israel; Mr. H. Cherney on behalf of the IEEE Board of Directors; and Mr. I. Ish-Hurvitz, Chairman of the IEEE Israel Section. The speakers pointed out the importance of developing the proper infrastructure in the country, both by absorbing know-how from abroad and by original R&D. About 6000 electrical and electronic engineers are now employed by industry, academic institutions and the defence establishment. In order to meet the challenges of the next decade Israel will have to double the present number of electronics engineers.

The keynote lecture of the opening session was delivered by Dr. B. Z. Nave, Director of R&D at the Ministry of Defence, who presented Israeli R&D goals for the eighties and described the process that brought about some remarkable state-of-the-art achievements in the production and export of defence systems.

Another keynote lecture was presented by Prof. H. Harari of the Weizman Institute of Science, on the topic of 'The Weak Force'. This was the first public lecture on this subject to engineers in Israel since the recent breakthrough in the research of this force, and the lecturer discussed its properties and the probable influence of its various aspects on future technology.

Some 80 technical papers in four parallel sessions were presented during the two conference days. Emphasis was placed on the application of theoretical state-of-the-art subjects to industrial technology.

Concurrently with the technical sessions, an exhibition comprising about 70 booths presented the latest and the newest in electrical and electronic components and equipment, both from local industry and from abroad.

The IEEE Israel Section operated a special membership recruitment booth, and nearly 40 new members joined the section during the convention.

The Israel Section of the IEEE, founded in 1956, held its Annual General Meeting during the convention. The section has today 527 members (including 78 students). Six Society Chapters and three University Student Branches offer the members versatile technical activities throughout the year.

MELECON '83 - ANOTHER SUCCESS

MELECON '83 which was held in Athens, Greece 24-26 May, was, like at a profit and that there will not be a deficit. The next MELECON is due the first MELECON in 1981, a great success. Approximately 400 participants attended and heard a wide variety of papers delivered in five parallel sessions. Early financial reports suggest that the conference ran

to be held in Madrid sometimes in May 1985 and the first announcement and call for papers is due to go out towards the end of this year.

INSTITUTE NEWS

The Regional Activities Board (RAB)

Comprised of 31 IEEE Members who meet four times a year, RAB is responsible for the geographically organized activities of the Institute, including those of the Regions, Councils, Sections, Chapters and Student Branches.

In the beginning, it was called the Sections Committee and was chaired by the Vice-President of the Institute. As a standing committee of the Board of Directors, the Regional Directors were members ex officio. Meeting twice a year was not enough, however, for the Regional Directors who also often met by themselves to discuss items. Thus, in March 1969, the Sections Committee was replaced by the Regional Activities Board

The newly established Board had the same, as well as expanded, duties of the Sections Committee including: formulating and recommending policies, criteria and procedures to the Board of Directors or Executive Committee to insure (1) the quality of programs for members in their respective locales; (2) constructive interaction among the locally organized IEEE units; and (3) adequate and responsible allocation of the Institute's volunteer and staff personnel and financial resources to support the Regions and their sub-units.

A recent example of RAB in action is the RAB Awards and Recognition Program. It has been developed to honour meritorious accomplishment of goals and objectives adopted by RAB in a given year. The proposal was submitted and approved at the November 1982 meeting. At the February Board meetings, the Ad Hoc Awards and Recognition Committee was made a Standing Committee of RAB. The targeted date for full implementation of the Awards Program is 1984.

So far, six awards have been approved: (1) the Innovation Award; (2) the Transnational Award: (3) the Membership Growth Award for highest percentage increase in membership above student grade in a Section (one per Region); (4) the Student Membership Growth Award for highest percentage increase in membership of student grade (one per Region); (5) the Student Activities Award (one per Region); and (6) the Section/Chapter Advancement Award (one per Region).

Any suggestions?

RAB wants to know what you think needs doing and how it might be accomplished. Submit your ideas to your Section Chairman or Regional Director. Also submit any comments you might have concerning recent RAB activities.

NOTES ON SUBSCRIPTION PAYMENTS

This will be the last Newsletter which you will receive before your Dues Renewal Invoice arrives. These notes will assist in having your payment correctly processed and recorded at Headquarters.

- (a) Read and follow the payment instructions carefully.
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If you do not receive your Membership Card within six weeks, contact the Member Services Department, IEEE Service Center, 445 Hoes Lane, Piscataway, New Jersey 08854, USA. (Telex: 833 233 IEEE PWAY).

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If you are unfortunate enough to experience difficulties with your subscription payment, be sure to put your membership number on all correspondence. If you have been in touch with the Member Services Department, and believe that they are not dealing with your difficulty efficiently, contact your Section Chairman. If you do not belong to a Section, write to the Director Region 8 (his address is shown on the front page of this Newsletter). If your membership has been stopped and must be renewed, be sure to request the back issues of all the journals you normally receive.

R. C. WINTON Secretary Region 8 ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE SWISS FEDERAL INSTITUTE OF TECHNOLOGY - LAUSANNE

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