

IEEE Region 8 newsletter



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A CENTURY OF ELECTRICAL PROGRESS

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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
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26th SEPTEMBER '84 - EUROCON '84 - 28th SEPTEMBER '84 BRIGHTON CONFERENCE CENTRE, BRIGHTON, ENGLAND COMPUTERS IN COMMUNICATION AND CONTROL

The sixth *European Conference on Electrotechnics* opens on Wednesday 26th September at Brighton on the south coast of England. The aim of the conference is to demonstrate the impact of computer-based technology, including the use of microprocessors, on the disciplines of communication and control.

The formal opening by Dr. John Brown, C.B.E. will be followed by the first *keynote address* given by Mr. J. Alvey, C.B., and by the "general" Session 1. For the remainder of the conference there are two parallel sessions. Session headings on 26th September are "Industrial Applications", "Security and legal aspects", "Control System Design" and "Power systems". The day finishes with a Civic Reception at the Brighton Corn Exchange.

The next day (Thursday 27th) starts with a *keynote address* by B. W. Oakley, Director of the Alvey Directorate, this being followed by sessions on "Switching", "Local area networks", "Computer architecture", "Distributed systems", "Communication Systems", and "Adaptive and learning systems". The day finishes with the conference dinner at the Metropole Hotel.

On Friday 28th the conference day starts with a *keynote address* by Mr. Carpentier, Director General of the Information Technology Task Force of the EEC, and the following conference sessions cover "Software", "Software reliability", "Process control", and "Computer communications".

There will also be poster display sessions on the three days of the conference.

An *Educational Workshop* to be held on the afternoon of 25th September, the day preceding the start of the conference, is particularly addressed to students and includes two tutorial lectures. The aim of these is to provide background and overview material as an introduction to the main Conference themes. Notes will be provided and questions answered, and there will be a panel discussion. This will be followed by the *IEEE student paper prize contest*, due to take place at 1900 in the Brighton Centre.



The Brighton Conference Centre

The *Companions' Programme*, for which tickets may be purchased, includes a tour of the Royal Pavilion, and visits to Michelham Priory, Arundel Castle and Goodwood House.

For a copy of the Conference programme, registration form and hotel information write to: Eurocon '84 Secretariat, Institution of Electrical Engineers, Savoy Place, London, WC2R 0BL, England.

NEW IEEE PRESIDENT-ELECT



Charles A. Eldon

Mr. Charles A. "Bud" Eldon has been elected by the IEEE Assembly which met in Boston, to fill the balance of the term of the late Dr. Donald D. King, 1984.

President-Elect and 1985 President of the IEEE, Mr. Eldon has served for many years on the IEEE Board of Directors, holding the offices of Region 6 Director (1979-80), Treasurer of the Institute (1981-82) and Executive Vice-President in 1983.

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REPORT FROM THE REGIONAL DIRECTOR



Karsten E. Drangeid
Director Region 8 1983-84

Elsewhere in this issue you will find accounts of the Centennial Celebrations which were held in Boston in mid-May. They provided a great occasion, and I was encouraged to see Region 8 so well represented. All of us were most warmly welcomed, and we all felt there were no strangers at the various functions, but only friends whom we had not yet met. If this spirit can grow in Section meetings in Region 8 I am sure it will do much to obtain new members and to retain existing members.

The main impression participants took home with them was of the tremendous impact electrical and electronic technology has had on all of our lives and

of the importance of the contribution made by the IEEE during the last 100 years. Very few of the early pioneer engineers could have foreseen either the level or the pace of development with which we are now faced.

The starting point was the transmission of electricity either as coded signals carrying information or for the transport of electrical energy converted from mechanical energy. More recently computation and control came into the picture. The computer entered the field first as a number-cruncher and later in information processing with direct applications in telecommunications and in computer aided design and manufacture up to today when computers, communications and control are playing a dominant rôle in offices, factories and homes.

In the world of today it is vital for all engineers to have the best possible

sources for continuing education and this is an area where the IEEE can provide an essential service to our members with their differing and ever changing needs. At the Sections Congress held in connection with the Centennial, representatives had the opportunity to discuss and formulate their views on the future rôle of the Institute and the conclusions and proposals will be reported later when all the views expressed have been fully considered.

Now for the more specific information about our Region.

First, our membership continues to grow and the May newsletter mailing was 15,725 – the first print run over 15,500.

The long delivery times of IEEE journals by international postal services is a problem which has been with us for a long time and there are plans to improve this service by setting up information centres in the Region to which bulk consignments could be sent by air. The first of such centres is proposed for the East Africa section but it must be realised that the success of this proposal will depend on the level of support available from volunteer members. While the experiment will serve only a small part of our Region, we will be continually studying other areas.

At the last Region 8 Committee meeting it was agreed that the full committee should meet only once a year. This leaves a long gap during which urgent decisions which cannot wait for the next meeting have to be taken by the Director. At the next meeting in September it is therefore proposed to consider the formation of an advisory committee to assist the Director with such urgent matters.

I conclude by making a special plea to all members to vote in the forthcoming ballots for President-Elect, Executive Vice-President and Region 8 Director. It would be much more motivating for these officers were they elected by many more than the 10 to 15 percent who have returned their ballot papers in the past. So please make sure that you use your vote. **Your vote is your voice in the IEEE.**

KARSTEN E. DRANGEID
Rueschlikon, Switzerland

ELECTION FOR DIRECTOR, REGION 8 1985/6

Members will receive ballot papers within a few weeks, and may wish to be reminded why only one name appears on the ballot for the election of Region 8 Director for 1985/86. This results from the change introduced last year when members voted in the election for Vice-Chairman, and the person elected, Mr. Basil W. Osborne becomes the only candidate put forward by the Region 8 committee for election as Director.

BIOGRAPHICAL NOTE



Basil W. Osborne

After receiving the BSc (Special), of the University of London, Mr. Osborne was with the National Physical Laboratory Radio Division (Slough, 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 Immediate Past Chairman of the executive committee of the United Kingdom and Republic of Ireland Section.

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).

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ELECTIONS FOR PRESIDENT-ELECT AND EXECUTIVE VICE-PRESIDENT

You will be receiving ballot papers and statements for two other important IEEE elections during the next few weeks. Remember to read the candidates' statements, which will accompany the ballot papers, and to vote early – a late vote is a wasted vote.

1985 President-Elect

Candidates: Jose B. Cruz, Jr.; Bruno O. Weinschel.

1985 Executive Vice-President

Candidates: George P. Rodrigue; Merlin G. Smith.

REMEMBER: YOUR VOTE IS YOUR VOICE IN THE IEEE

8th OCTOBER '85 – **melecon'85** – 10th OCTOBER '85

mediterranean electrotechnical conference, madrid, spain

Under the title "Melecon goes to Spain", Melecon '85 will be held in Madrid, Spain on the 8, 9, 10 October 1985. After the success of Melecon '81 (Tel Aviv) and Melecon '83 (Athens) this third Mediterranean Electrotechnical Conference will concentrate on covering areas of interest to the Mediterranean countries. In the beautiful setting of the Palace of Exhibitions and Congresses of Madrid it will provide an opportunity for interaction among engineers and scientists in the four main areas of interest:

(A) **BIOENGINEERING** – Diagnostic devices – Therapeutic and functional aids – Biomedical signal processing – General medical informatics.

(B) **DIGITAL SIGNAL PROCESSING** – Spectral analysis and adaptive systems – Speech and image processing – Hardware implementations – Applications to radar, sonar, communications, and others – Special topic: Computer communications.

(C) **RADIOCOMMUNICATIONS** – Active radio frequency circuits, including integrated circuits – Passive radio frequency circuits, including non-reciprocal circuits – Antennas, radiating systems, wave propagation in the natural media – Electromagnetic theory, numerical methods in electromagnetism.

(D) **SOLAR ENERGY** – Photovoltaic Physics and Technology – Photovoltaic systems – Thermal Solar Energy – Wind generators and systems.

The steering committee comprising Prof. A. Luque (Chairman), Prof. E. N. Protonotarios, Dr. J. Baal-Schem and Prof. A. R. Figueiras has already issued a call for papers inviting submission of 300–600 word abstracts by December 1st 1984 to: Prof. A. Luque, Instituto de Energia Solar, E.T.S.I. Telecomunicacion, UPM, Ciudad Universitaria, Madrid 3, Spain.



El Escorial, one of the major attractions near Madrid, Spain

Four technical committees have been formed each dealing with one of the main topics.

Seminars on solar energy, on the effects of information technology and on estimation theory are planned in conjunction with the conference.

A programme of visits in Madrid and to other sites in Spain will be prepared for the attendees and accompanying persons.

A CENTURY OF ELECTRICAL PROGRESS

This is the third article in the series on 'A Century of Electrical Progress'. The events listed below represent more of the stepping stones in Man's continuing quest for knowledge of his surroundings.

Progress in AVIONICS and RADAR

- 1903 Wright brothers made the first heavier-than-air flight
- 1914 Goddard in the U.S.A. experimented with rockets
- 1926 Goddard constructed the first liquid-fuel rocket
- 1935 Watson-Watt demonstrated the detection of aircraft by radio
- 1941 H2S radar used to identify landmarks
- 1957 Russia launched the first Sputnik
- 1961 Russia put the first man in space (Gagarin)
- 1969 First man landed on the moon (Armstrong)

Progress in RADIO, TELEVISION and SOUND

- 1878 Edison invented the carbon transmitter (microphone)
- 1898 Poulsen invented the magnetic recorder
- 1908 Campbell-Swinnerton forecast electronic television
- 1920 In the U.K. the Marconi Company opened the first public broadcasting station
First American broadcasting station opened at East Pittsburgh
- Gramophone discs first recorded electrically
- 1923 Broadcasts from the U.S.A. first heard in the U.K.
Demonstration of first sound films in New York City
- Zworykin invented the iconoscope
- 1924 Rice-Kellog developed the loudspeaker in the U.S.A.
- 1926 Baird first demonstrated television
- 1927 Sound on film recording introduced
- 1936 First high definition television service opened in the U.K. (Alexandra Palace)
- 1938 Experimental shadow mask television tube constructed
- 1948 First magnetic sound recording
- 1953 First experiments on colour television in the U.S.A.
- 1954 First transistor radio set produced
- 1958 Ampex introduced video tape recorders
- 1967 First U.K. colour television broadcast

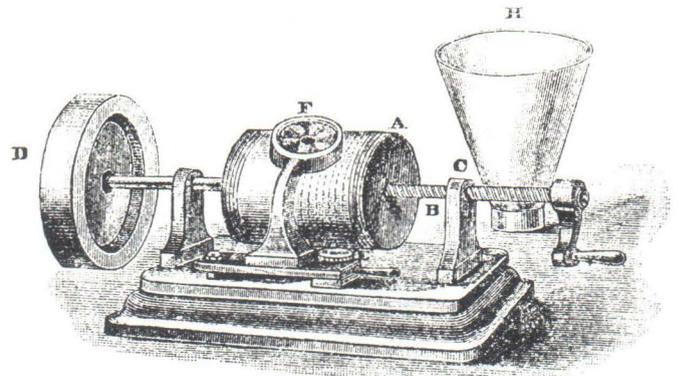


FIG. 319e.—Edison's Original Phonograph.

Fig. 319e shows the form of the phonograph as designed by Mr. Edison in 1877. It had a brass cylinder (A) upon which a narrow helical groove was cut, and was mounted upon an axle (B), having a narrow screw-thread corresponding with the groove on the cylinder, and working in the upright (C), so that when the handle was turned the cylinder revolved, and at the same time advanced in the direction of its axis. A heavy fly-wheel (D) was attached, in order that the rate of motion might be nearly uniform. A sheet of tinfoil, or of very thin copper, was wrapped round the brass cylinder, and on this metallic foil rested the steel point attached to the vibrating diaphragm, which was mounted in the ring (F). This point was always adjusted so as to be over the helical groove in the cylinder, and made to touch the tinfoil with a regulated pressure.

(Reproduced from 'Discoveries and Inventions of the Nineteenth Century' published in 1890)

- 1972 Video games introduced by Magnavox
- 1977 Pocket television introduced by Sinclair
- 1979 Laser video disc introduced by Philips
- 1980 Digital discs introduced by Sony-Philips

CENTENNIAL EVENTS IN BOSTON



David Packard, Chairman of Hewlett-Packard, who delivered the Centennial Convocation Keynote Address

Take a large number of hard-working committees, a dedicated permanent staff, and five years' planning. Serve in a high technology hotel (36 floors, 804 rooms, 655 miles (1048 km) of wiring!), and season with a well-organised registration staff, and you have Centennial celebrations worthy of the world's largest engineering society.

Such is the background to the IEEE Centennial Celebration in the Westin Hotel, Boston, USA, held on 14 May. The climax was the Centennial Convocation Banquet, which I attended together with 860 IEEE members and their guests. The Master of Ceremonies, 1981 Executive Vice President Bob Lucky, remarked that "the banquet had been cooking for 100 years", and that it was "the greatest

gathering of electrical engineering talent since Thomas Edison dined alone".

After dinner the Centennial Address was given by Mr. David Packard, Chairman of the Board of Hewlett-Packard. After outlining 100 years of electrical progress, from the carbon arc to the silicon chip, he concluded with the opinion that genetic engineering "is the most exciting new technology on the horizon. It may provide a whole new approach to electronic phenomena and materials".

The evening concluded with a memorable presentation "Generation of Giants", introduced by "Benjamin Franklin", in which actors portrayed the engineers and scientists who had made the most significant contributions to electrical progress over the last 100 years. Seventeen Giants from five countries were included, and from the conversation between them we were reminded of the contribution which each had

made. But it was an evening which not only looked at the past; among the guests were John Bardeen, co-inventor of the transistor, and Mrs. Goia Marconi Braga, daughter of the great Marconi.

Also on 14 May I attended the Centennial Reception and Lunch for Learned Societies and Associations, which truly indicated the IEEE's transnational character. Of the 84 representatives from societies and associations, 56 were from the US and 28 from other countries, of whom 22 were from societies and associations in Region 8. In all, 15 countries were represented, and each representative made a presentation to IEEE President, Dick Gowen, to commemorate the Centennial. The lunch concluded with the first showing of the IEEE Centennial Film, "The Miracle Force", in which young engineers in five areas of electrical and electronic engineering discussed and showed their work and its relevance to present day needs. I must say that the film did not impress me, and I especially regretted that it proved to be a national film, with all the work shown being conducted in the US.

The Celebrations included events on 13 and 15 May. Region 8 was also well represented at all of these with a total of 13 representatives, who included the Regional Director, the Immediate Past Director, the Vice-Chairman, the Conference Co-ordinator, the SAC Chairman, and the Chairman or a representative from the East Africa, Finland, Germany, Israel, Poland and UKRI Sections. Also present, by special invitation, was Mr. P. C. Siraut from Belgium, the student chosen to represent Region 8.

Many of those who came to Boston from Regions outside the US were accommodated in the homes of IEEE members living in or near Boston, and I am sure that those of us who came from Region 8 would wish me to say how very much we appreciated the warm hospitality we received. I feel sure that during the Celebrations we all met many friends whom we already knew, and made many new friends. The Celebrations proved to be not only a gathering of a great society, but in many ways they were also the gathering of a great transnational family.

ROBERT C. WINTON
Secretary, Region 8

CENTENNIAL SECTIONS CONGRESS



Robert C. Winton
Secretary Region 8

The first-ever Sections Congress was held on 15th May, the day following the Centennial Convocation. The Congress was a one-day working meeting, called to make recommendations to the IEEE Board of Directors on the actions required to improve members' benefits and services. A great deal of preparatory work had been done. Questionnaires were sent to all Section Chairmen, which they were asked to complete in accordance with their views and the views of their members, to indicate which Institute benefits and services were inadequate, and suggesting improvements. The replies were divided into the following seven subjects: Section and Region Operations; Continuing Education; Technical Activities; Professional Activities; Technical Publications; Membership Benefits; Institute Communications.

For each subject a team of three was appointed, including a team captain with responsibility for presenting the views expressed in the questionnaires to a plenary session, for acting as chairman of a working group to discuss these views and recommend action, and for reporting these recommendations for action to the plenary group, who then voted on them. The recommendations and the results of the voting will be considered by the Board of Directors.

The plenary session consisted of around 200 Regional and Section representatives, so that each of the seven working groups totalled 25-30. As captain of the team concerned with Section and Region Operations I took every opportunity to point out that members outside the U.S. (Regions 7-10) have different needs from members in the U.S. (Regions 1-6); some of my team's recommendations were presented as relevant to Regions 1-6 and others as relevant to Regions 7-10. I believe that by the end of the day many of those who attended were aware for the first time of this basic implication of transnationalism. Certainly a number of the recommendations which will go forward to the Board of Directors directly concern problems we experience in Region 8.

I judge this first Section Congress a great success, and I certainly learned a great deal about the way other Regions operate, and that Region 8 is not the only Region with its special difficulties; many others present must have benefited in the same way. My main criticism is that much too little time was allowed for completing the questionnaires - only weeks instead of months. This was in part responsible for the small number of replies to the questionnaire; only three from Region 8 for example. In addition too little time was available to the working groups.

As each team captain presented the recommendations for action from his working group to the plenary session, those present were asked to vote on each recommendation on a ballot paper by marking one of the following categories: strongly agree (SA); agree (A); no opinion (NO); disagree (D); strongly disagree (SD). Below I indicate the results of this voting on those recommendations I consider of particular interest to members in Region 8. The **Agreement Score (AS)** is obtained by

CENTENNIAL PAGES



CENTENNIAL SECTIONS CONGRESS (continued)

scoring one-and-a-half for each SA vote and 1 for each A vote. The **Disagreement Score (DS)** is obtained by scoring one-and-a-half for each SD vote and one for each D vote. The **No Opinion (NO)** score is obtained by adding the NO vote to the number of ballots without any vote on the issue. One-hundred and sixteen people took part in the voting. I have listed the recommendations in order of the strength of support they received.

Reverse the decline in the proportion of dues paid back as Section Rebates.

AS 136 DS 2 NO 15

Fund a distinguished speakers programme in all Regions.

AS 118 DS 2 NO 9

Assistance with Section and Chapter financial problems.

AS 118 DS 9 NO 19

Stronger Section and Chapter links with Societies.

AS 109 DS 1 NO 23

Sections to be notified and given an opportunity to participate in IEEE conferences in their territory.

AS 108 DS 6 NO 25

Minimise charges arising from currency transfers.

AS 103 DS 5 NO 26

Assess the professional activity needs in Region 7-10.

AS 97 DS 9 NO 29

Membership not to be restricted by difficulties in transferring funds out of a country.

AS 94 DS 20 NO 23

Solve the problems caused by blocked accounts.

AS 83 DS 10 NO 29

A greater proportion of the Section Rebate to be paid early in the year.

AS 83 DS 13 NO 36

Creation of a central panel to support Fellow nominations if insufficient Fellows are available locally.

AS 82 DS 10 NO 35

There should be a reduction in dues in those Sections in Region 8-10 where dues are unduly high in relation to salaries.

AS 80 DS 26 NO 27

Translate foreign articles into English for publication in IEEE journals.

AS 60 DS 16 NO 49

ROBERT C. WINTON
Secretary, Region 8

IEEE MILESTONES PROGRAM

The purpose of the recently introduced IEEE Milestones Program is to focus attention on specific sites associated with outstanding electrical and electronics engineering achievement by commemorating them with a plaque and a ceremonial dedication. A Milestone designated site can be any appropriate location; there need not be any building on the site.

It is the responsibility of a Section or Chapter to apply for a Milestone designation to be approved, to carry out any research necessary to establish the significance of the site, and to complete the application form and submit it to the IEEE Center for the History of Electrical Engineering in New York.

Further details are available from Mr. R. C. Winton, Secretary Region 8, 224 Creighton Avenue, East Finchley, London, England, N2 9BD.

CENTENNIAL MEDALS

The following list has been derived from the alphabetical listing of all the Centennial Medal awards which was made available at the IEEE Centennial celebrations in Boston last May. It groups them under the Region 8 Sections appropriate to their listed addresses.

AUSTRIA

Richard Eier
Robert Genser

BENELUX

Vitold Belevitch
Evan D Emett
Auguste A Laloux
Simon Middelhoeck

DENMARK

H Lottrup Knudsen
Aage Pedersen
Erik B Rasmussen
Christian F Rovsing

EAST AFRICA

Gordon W Brown
Dipak D Patel

EGYPT

Abdel Latif I Ahmed
Salah Amer
Abdel-Monem Y Bilal

FINLAND

Iiro C Hartimo
Yrjo A Neuvo
Martti E Tiuri

FRANCE

Maurice G Bellanger
Jacques Clade
Claude J Gueguen
Michel J Joindot
Jean D Lebel
Alain J Profit
Jean-Claude Sabonnadiere
Jean P Voge

GERMANY

Johannes Berghammer
Friedrich W Coers
Alfred Fettweis
Werner Kleen
Walter E Proebster
Lothar Rohde
Peter H Roth
Hugo Ruechardt
Rudolf Saal
H W Schuessler
Alois J Sieber

GREECE

Christos C Halkias
Emmanuel N Protonotarios
Michael G Strintzis
John A Tegopoulos

IRAN

Behrooz Parhami
Abdolhossein Rahimi

ISRAEL

Jacob Baal-Schem
Israel Cederbaum
Uzia Galil
Yeshayahu Lavi
Gourion Meltzer
ITALY
Giuseppe Biorci
Giorgio Catenacci
Pierpaolo Civalleri
Ercole de Castro
Claudio Egidi
Emilio C Gatti
Arnaldo M Angelini
Giorgio Barzilai
Paolo Bernardi
Vito Cappellini
Antonio Ruberti

NORWAY

Jens G Balchen
Inge Johansen
Lars Monrad Krohn

POLAND

Adam K Smolinski
Andrzej J Sowinski

PORTUGAL

Carlos Barradas da Silva
Manuel Correa de Barros
Jose M Tribolet

SAUDI ARABIA

Lynn D Blackwell
Mike Hoffman
James L Knox
Robert B Tucker Jr

SPAIN

Juan J Jimenez-Lidon
Andres Lara
M Rodrigues-Vidal
Jose G Santenmases
Ricardo Valle

SWEDEN

E Folke Bolinder
Robert I Magnusson
Per Arne Tove
J Torkel Wallmark
Carl Axel Wannerskog

SWITZERLAND

Roger Dessoulavy
Karsten E Drangeid
Walter Guggenbuhl
Stefan N Kudelski
Fritz J Locher
James L Massey
Ernst Meili
Subrata K Sarkar

UKRI

Kenneth Baker
Robert J Clayton
Andrew R Cooper
D E N Davis
Maldwyn N John
Alan W Pearson
C Reginald Russell
Clive Sinclair
Robert C G Williams
Robert C Winton
Erich P Wohlfarth

YUGOSLAVIA

Hrvoje Pozar
Rajko Tomovic
Lojze Vodovnik

MEETINGS IN REGION 8

JINA '84 International Symposium on Antennas - Journées Internationales de Nice Sur les Antennes

This symposium will be held 13-15th November 1984 at the Acropolis Convention Center in Nice, France. It is organized by the Centre National d'Etudes des Télécommunications (CNET) and the Société des Electriciens, des Electroniciens et des Radioélectriciens (SEE) and sponsored by the IEEE French Section. Eleven invited papers and fifty posters will be presented in five sessions: (1) NUMERICAL AND ASYMPTOTIC TECHNIQUES APPLIED TO ANTENNA DESIGN; (2a and 2b) TELECOMMUNICATIONS ANTENNAS; (3) SCATTERING, IMAGING, AND NEAR FIELD; (4) MICROSTRIP AND ARRAY ANTENNAS.

Information and Advance Programs: Mrs. Anne Cerboni - CNET/PAB, Centre de LA TURBIE, 06320 Cap d'Ail - FRANCE. Tel. +33 (93) 41.15.30.

27th Israel Annual Conference on Aviation and Astronautics

You are invited to participate in the Twenty-Seventh Israel Annual Conference on Aviation and Astronautics which will be held on 27th February in Tel Aviv and on 28th February 1985 in Haifa, Israel. The conference is held in co-operation with the Israel Section of IEEE.

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, Space Systems and Astrodynamics. 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 1st October 1984. Papers will be selected on the basis of an assessment of the abstracts. Authors will be notified of the acceptance of their papers by 15th November 1984. Complete manuscripts should be submitted by 31st December 1984.

For further details please write to: Dr. M. Guelman, Chairman Editorial Committee, Twenty-Seventh Israel Annual Conference on Aviation and Astronautics, c/o Department of Aeronautical Engineering Technion - Israel Institute of Technology, Haifa, 32000, ISRAEL.

3rd IFAC Symposium on Computer Aided Design in Control and Engineering Systems

The symposium will be held at the Technical University of Denmark, Lyngby, from 31st July to 2nd August 1985. The symposium is organized by the Danish Automation Society with ten sponsors or co-sponsors, including IEEE Denmark Section.

The objective of the symposium is to present the state of the art and the trends in developments of computer aided design techniques, procedures and concepts with particular emphasis on practical applications.

The programme will be organized in four main sessions according to the main fields of application: Electronics Industry, Mechanics/Electromechanics Industry, Process Industry, Public Utilities and Logistic Systems.

The following methods and procedures are relevant in association with the main fields: Computer Aided Manufacturing; Computer Aided Design Systems; Man-Machine Interaction; Economic Considerations.

Five copies of abstracts are required by 1st September 1984 in English (300-400 words) in sufficient detail to permit careful review to: P. Martin Larsen, Danish Automation Society, Building 229, Technical University of Denmark, DK-2800 Lyngby, Denmark.

Further information from: Danish Automation Society, Building 229, Technical University of Denmark, DK-2800 Lyngby, Denmark.

EMC Symposium and Technical Exhibition, Zurich 1985

After the success of the 1983 conference (625 participants from 23 countries, 29 exhibitors and 103 technical papers), the 6th EMC Symposium is planned for 5-7th March 1985 in Zurich. Conference facilities are again provided by the Federal Institute of Technology in Zurich. Members of the Organising Committee are Prof. Dr. P. Leuthold (President), Dr. T. Dvorak (Chairman), Prof. Dr. R. M. Showers (Program Chairman), sponsoring organisation is the Swiss Electrotechnical Association.

Prospective authors are invited to submit 10 copies of an abstract and summary not exceeding five pages before 15th March 1984, to the Technical Program Committee EMC 1985, ETH Zentrum-IKT, 8092 Zurich, Switzerland. Summaries should clearly describe work done, including results and conclusions and should preferably be accompanied by graphs and other pictorial material. Only original papers not published or submitted elsewhere will be considered. To ease up the reviewing procedure, author names, addresses, telephone and telex numbers should be quoted on a separate sheet.

Authors will be notified by 18th June 1984, authors kits will be enclosed. Photo-ready manuscripts will be due by 31st October 1984.

For best papers five awards will be available with monetary prizes of Swiss francs 2'500.-, 1'500.- and 1'000.-.

A rich technical and social programme with workshops and technical excursions is again foreseen.

For further information contact: Dr. T. Dvorak, ETH Zentrum-IKT, 8092 Zurich, Switzerland. Tel. (.411) 256-2790, Telex. 53 178 ethbi ch.

4th NTG - Technical Conference on "Large Scale Integration"

Technology, Circuit Design, Systems, Applications, March 18-20, 1985, Baden-Baden, FRG. The conference is organised by the Committee 8, "Large Scale Integration (LSI)" of the Nachrichtentechnische Gesellschaft im VDE (Telecommunications Society), in cooperation with the NTG-committee 3, "Semiconductor (Devices and Integrated Circuits)", and committee 6, "Computer Science" working together with the German section of the IEEE.

Deadline for submission of Papers is August 17, 1984.

A four page version of the accepted papers will be published in the Conference proceedings and will be available for distribution to all participants at the beginning of the conference.

For further information contact:

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ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE
SWISS FEDERAL INSTITUTE OF TECHNOLOGY - LAUSANNE

JOURNÉES D'ELECTRONIQUE ET DE MICROTECHNIQUE 84

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NEWS OF THE SECTIONS

Israel Section (Chairman: Dr. D. Biran)

Since the 13th Convention of Electrical and Electronics Engineers in Israel (reported in the August 1983 Newsletter) the membership of the Israel Section has grown from 527 to 578 members (an increase of 9.7%).

The 1983/84 season of the Israel Section has been one of extensive professional activities. Fourteen conferences, courses and tutorials were held on diverse subjects, with a total attendance of 1288. The following is a condensed list of these activities.

- ★ A conference on Distributed Systems was held on 13th September 1983, with an attendance of 152.
- ★ A conference on The Automated Office took place on 3rd October 1983, with a participation of 41.
- ★ A conference on EMC in Digital Systems took place on 18th October 1983, with a participation of 129.
- ★ A conference on Local Area Networks was held on 9th November 1983, with a record attendance of 251.
- ★ A symposium on Antennae and Microwaves was held on 22nd November 1983, with 48 members attending.
- ★ A conference on Microelectronics took place on 25th December 1983, with a participation of 42.
- ★ A two-day seminar on Automated Test Equipment (27–28th December 1983) was attended by 122 members.
- ★ A conference on Cable TV Technology took place on 28th December 1983, with an attendance of 56.
- ★ A tutorial on Active Filter Design was held on 24th January 1984, with 35 members participating.
- ★ A tutorial on Software Configuration Management took place on 30th April 1984, with an attendance of 100.
- ★ A three-day course on the same subject (1–3rd May 1984) was attended by 40 participants.
- ★ A conference on ADA and Software Engineering was held on 8th May 1984, with 40 participants.
- ★ A conference on Aerospace and Electronic Systems was held on 9th May 1984, with 82 members attending.
- ★ A conference on Frequency Spectrum Management took place on 29th May 1984, with an attendance of 50.

In March 1984 the IEEE Centennial was celebrated at a Special Festive Meeting whose keynote was Technological Education in Israel. At this event, five IEEE Centennial Medals were presented to: Prof. I. Cederbaum (Fellow); Mr. Y. Lavi (Fellow); Mr. U. Galil (Fellow); Mr. G. Meltzer (SM); Dr. J. Baal-Schem (SM).

On the same evening the IEEE Israel Section held its Annual General Meeting.

The Israel Chapter of the IEEE Society on Aerospace and Electronic Systems held its first meeting on 9th May 1984 (see above). A Joint Chapter on Industrial Electronics and Industry Applications has also been proposed and will be set up soon.

The 14th Convention of Electrical and Electronic Engineers in Israel will take place in Tel Aviv on 26–28th March 1985. The various organizing committees have already been established, and preparations will soon be in full progress.

Finland Section (Chairman: Dr. Olli E. Simula)

The Executive Committee for the year 1984 was elected in a meeting held on 9th January at the Helsinki University of Technology. The officers are: Chairman, Olli Simula; Vice-Chairman, Yrjö Neuvo; Secretary, Seppo Haltsonen; Treasurer, Iiro Hartimo; and Jr. Past Chairman, Johan Tallqvist.

During the first half of the year 1984 IEEE Finland Section has arranged five technical meetings held in the industrial companies. The Section has also co-sponsored the annual "Day of Electricity" with the national EE societies. The topics of the day were energy production and information technology and the programme consisted of eight talks.

Special activities were organized on 5th April to celebrate the IEEE Centennial. The programme of the centennial seminar consisted of the IEEE Centennial Slide/Tape presentation and talks of Professors Matti Ojala and Yrjö Neuvo. The topics of their talks were the international connections of Finnish engineers and researchers and IEEE's role in it. During the centennial seminar the IEEE Centennial Poster Exhibition was opened at the Helsinki University of Technology. At the Centennial Dinner three IEEE Centennial Medals were presented to those who have made outstanding contributions to the IEEE Finland Section. The recipients of the medals were Professor Martti Tiuri, Associate Professor Iiro Hartimo, and Professor Yrjö Neuvo.

Germany Section

As the official IEEE Centennial Celebration of the Germany Section a special section meeting was held at the opening night of the INTERMAG '84 Conference in Hamburg (8th April 1984). The Vice-Chairman of the Germany Section, Dr. Rüdhardt, welcomed the section members and a large number of most distinguished guests from all over the world. The President of IEEE Dr. Richard Gowen, and the General Manager, Mr. Herz, gave a most memorable quality to the event by their presence and participation.

The official centennial lecture presented by Prof. M. Kersten gave a truly competent overview on "100 Years Magnetic Contributions to Electrotechnics". It was complemented by an exhibition on the same topic organized by Prof. Feldtkeller. As a further highlight of the evening Prof. H. Beneking received his certificate as a new Fellow of the IEEE "for innovation in the field of compound semiconductor technology and devices, especially for work on heterostructure bipolar devices". New fellow elections were also announced during the ceremony for the Germany Section members E. Feldtkeller, W. Harth, and K. U. Stein.

Last but not least, Prof. W. Proebster was surprised most appropriately by his Section Board with the IEEE Centennial Medal. After all, realization and success of INTERMAG '84 was to a great part a result of his energy, skill and organisational talent.

Spain Section (Chairman: Prof. Aníbal R. Figueiras-Vidal)

Spain Section has celebrated a general meeting to commemorate the IEEE Centennial on 28th May at the ETSI Telecomunicación, Polytechnic University of Madrid. This meeting provided a convenient opportunity to receive comments and suggestions for local activities by the members of the Section.

Five Centennial Medals have been awarded to Spanish researchers and professionals in the Electrical and Electronic Engineering fields: Prof. J. García-Santesmases; Prof. M. Rodríguez-Vidal; Dr. J. J. Jiménez-Lidón; Dr. R. Valle-Sánchez; and Dr. A. Lara-Sáenz, received these medals at the general meeting. Prof. J. García-Santesmases, who has been honoured recently with the first Scientific Research Spanish Prize, offered an invited dissertation on "Spanish Contributions to the Development of Computers".

The meeting served also to announce the decisions on Section awards for undergraduate and graduate students, and a Centennial award for a work under the topic "The Product of the Future". Mr. F. J. Castañero-Perea, Mrs. A. Ayerbe-García, and Mr. J. P. Sánchez-Bertrán, respectively, are the winners.

Spain Section is now involved, in cooperation with Region 8, in organizing the celebration of MELECON '85, to be held in Madrid in October 1985. The Conference is under the Chairmanship of Prof. A. Luque, Solar Energy Institute, ETSI Telecomunicación, Polytechnic University of Madrid. The first Call for Papers has been distributed; the topics to be considered are Digital Signal Processing, Bioengineering, Radiocommunications, and Solar Energy.

Sweden Section (Chairman: Mr. Sven-Olof Öhrvik)

The Sweden Section has some 600 members this year.

The IEEE Centennial was celebrated in connection with the annual meeting in Lund on 1st March. After the official meeting procedures –e.g. the election of a new Sweden Section Board, see below – five Centennial Medals were given to the following members for extraordinary achievement by the Section Chairman Prof. Lars H. Zetterberg: E. Folke Bolinder; Robert I. Magnusson; J. Torkel Wallmark; Carl-Axel Wannarskog; Per-Arne Tove.

After this ceremony Folke Bolinder gave a much appreciated speech on the subject "IEEE and its role in Region 8".

This spring an MTT Chapter was formed in Göteborg and it has 42 members today. Its officers are: Chairman, Erik Kollberg; Vice-Chairman, Sven Wallander; Secretary/Treasurer, Peter Linnér.

During this spring the Chapter had two technical/professional meetings.

The new Sweden Section Board has the following officers: Chairman, Sven-Olof Öhrvik (Stockholm/Lund); Vice-Chairman, Ingemar Ingemarsson (Linköping); Secretary/Treasurer, Lars Olsson (Lund); Student Representative, Stephan Dymling (Lund); Auditor, Carl-Erik Sundberg, (Lund); Senior Chairman, Lars H. Zetterberg (Stockholm); Member, Erik Kollberg (Göteborg).

NEWS OF THE SECTIONS (continued)

United Kingdom and Republic of Ireland Section (Chairman: Dr. G. H. Byford)

The event of the year, or perhaps of the century, for the UKRI Section will be the Centenary Lecture on Monday 1st October at the IEE, Savoy Place, London. The lecture will be given by Dr. H. B. G. Casimir, FOR.MEM.R.S., who takes as his title "Electrons in Theory and in Technology", a topical field in which the speaker has an enviable reputation. Chairman for the evening will be Dr. Richard J. Gowen, IEEE President; the President of the IEE, Professor J. C. West, will introduce the proceedings, which will be brought to a close by Mr. M. N. John, who will on that day be the IEE Immediate Past President. Members and their guests are assured of a most interesting evening; only rarely will such presidential prestige, scientific erudition and historical authority be found on the same platform.

The UKRI Computer Chapter, under the guidance of its enthusiastic Chairman Roland Saam, continues to provide a varied programme of didactic lectures, scientific papers and technical workshops. Regional Computer Groups are being formed and interested members should contact the Section Secretary, Professor Charles Turner; the cost of Chapter membership may be negligible but the return most certainly is not.

Yugoslavia Section

Kron's Death Commemoration

A memorial meeting was organized at the end of last year by the Yugoslavia IEEE Section jointly with the Faculty of Electrical Engineering, University of Belgrade, ETAN, and the Yugoslav Power Society, to commemorate fifteen years of Gabriel Kron's death and thirty years of his first paper on diakoptics.

The programme consisted of five lectures. S. Despotović presented biographical data, a survey of his main contributions and the significance of his work for further research. Other lectures (M. Milić and co-workers, and M. Vehovec and F. Bratković) covered various topics concerning the development of diakoptics since Kron's death up to now. After an interesting discussion, a coordination committee (KORD) was elected to advance research and application in the area of solving large scale physical problems by means of diakoptics.

A symposium on diakoptics is planned to be held in Belgrade in autumn 1985.

GEORGE MONTEFIORE FOUNDATION

1985 COMPETITION

A prize, to be awarded every five years, will be bestowed by means of an international competition, on the best original work submitted on scientific advance and progress in the technical applications of electricity in all spheres, excluding popular treatises or compilations.

Only those works submitted during five years preceding the meeting of the board of examiners will be considered for the award. They must be written in French or English.

Eight copies of each work must be submitted, whether printed or typewritten; they should be sent, postage paid, to "Monsieur le Secrétaire Archiviste de la Fondation George Montefiore, Hôtel Montefiore, rue Saint Gilles, 31, B-4000 Liège(Belgium).

The sum to be awarded amounts to 250,000 BELGIAN FRANCS.

The deadline for receipt of works by the board of examiners is 1st FEBRUARY 1985

The works submitted should be clearly and prominently headed: "Travail soumis au concours de la Fondation George Montefiore, session de 1985".

For any further information, please contact Mrs. Ch. LACROSSE, Association des Ingénieurs Electriciens sortis de l'Institut d'Electricité Montefiore, rue Saint Gilles, 31, B-4000 Liège (Belgium). Tel. (41) 22.29.46.

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