

IEEE Region Eight NEWS



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Editor

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"MEMBERSHIP DEVELOPMENT" by Professor Walter Proebster

Our Goal for 1988, the 25th Anniversary of the Region: Each Member wins one New Member



What is "Membership Development"? Many IEEE members will have no or at best only a vague idea of the meaning of the words as they are used by the Institute; how are those words interpreted and how do they affect the ordinary member? The replies to these questions are not simple but they do profoundly influence the way in which the IEEE can be of benefit to society in general, to the individual members and to the body of engineers of which they are a part.

The IEEE was founded to provide a forum within which electrical engineers could exchange their experience and views; clearly, the greater the number of engineers taking part in that process the greater will be the benefits which they enjoy. It is the aim of those responsible for Membership Development to ensure that the **largest possible number of participants** takes part in this sharing of knowledge, and in the creation of a pool of specialist experience.

It is of course not numbers alone which contribute to success; the members themselves must be **adequately qualified**, not only to receive information from others, but also to contribute their own knowledge both to the younger members for whose "education", in the broadest sense of that word, they are responsible, and to disseminate and discuss the most recent of technological advances. In short Membership Development establishes a system within which the number of members can be increased, their qualifications assessed and their administrative requirements satisfied.

The growth of membership in our region is strong; in 1987 we had more than 19,000 members, an annual growth of about 1,700, almost 10%; compare this with the total membership of the IEEE of almost 300,000 and an annual growth of about 5%.

Engineers are very practical people, who would not support the Institute unless there were real advantages to be gained from membership – it is our aim to present those advantages in a way which ensures that engineers and computing specialists realise that joining the IEEE contributes something important to their career. It is essential that engineers, computer experts, industry and the

universities should be made aware of the importance of taking advantage of the most modern advances, and so keep abreast of the competition in international technology; that, and the fact that there are in Europe alone several million electrical, electronic and computer experts, give us good reason to believe that it is possible to increase very substantially the numbers of Region 8 members of the IEEE.

Membership Development activities for the IEEE are managed by a small group in New York Headquarters and by a large number of dedicated volunteers, particularly the representatives in your Sections and in the Regional and Technical Societies. Most important of all is your personal contribution; you know personally those engineers who are potential members: colleagues, students and participants at technical meetings.



OLD MUNICH

Photo: German National Tourist Office, London

It is you who have the influence to persuade potential members to become real members by convincing them of the advantages of joining the Institute, your personal recommendation is of greater value than any publicity which the Institute itself can provide.

Munich is one of Europe's premier historic cities, a city full of charm and character, with an attractive blend of the new and the old; it is also the city in which the IEEE 25th Anniversary celebration will be held. At that celebration some of the world's eminent engineers will be giving their views on the future for engineering, on the problems of ensuring safety in engineering systems, on the benefits which engineering might provide for society and on the contribution which engineering could make to easing the problems of the third world. If you would like to participate in all of this, use the IEEE enrolment forms included with this issue of Region 8 News, or obtain some from your Section Membership Representative; persuade your colleagues and friends to complete them and then return them, before August 1st 1988, to your Section Representative. Alternatively they could be returned to Professor W. Proebster, IBM Germany, D-7030 Boeblingen, Schoenaicherstrasse 220, FRG. Do not forget to include your own name and address because

Region 8 is offering three prizes of \$300 to those who are most successful in introducing new IEEE members, as a contribution to your expenses in attending the 25th Anniversary celebrations – carry a few Application Forms with you and use them whenever the opportunity arises.

NEWS FROM THE SECTIONS

FRANCE By Mr. J. Cladé

EUROPEAN ENGINEER TITLE

On 28 October in Paris 60 engineers from 20 European nations were awarded the title of "European Engineer". The President of the French Senate, Mr. Poher, himself a graduate from the Paris School of Mines, presented the first awards.

It is the FEANI (Federation Européenne d'Associations Nationales d'Ingénieurs) which has initiated the title. Its purpose is to recognize professional experience together with a high level of University training (minimum of four years). FEANI has one corresponding committee in each of 20 European countries (the 12 of the European Community together with Austria, Cyprus, Iceland, Finland, Malta, Norway, Sweden and Switzerland). It represents more than a million engineers.

From now on, engineers who so desire can apply for the title of "European Engineer" by filling up an application form from their national committee. The name and address can be obtained by writing to FEANI, 4 rue de la Mission Marchand, 75016 Paris-France.

JICABLE 87

La deuxième conférence internationale sur les câbles d'énergie à isolant synthétique "JICABLE 87" qui a regroupé 591 délégués de 40 pays s'est déroulée au Palais de Congrès de Versailles du 21 au 26 Septembre 1987.

JICABLE 87 a permis une large confrontation en matière de recherche et de développement industriels sur les câbles à isolant synthétique pour tous les niveaux de tension depuis la basse tension jusqu'aux plus hautes tensions.

Quatre vingt cinq rapports ont été discutés sur les thèmes suivants:

- Matériaux, mécanismes de claquage, vieillissement, influence de l'eau.
- Méthodes de mesure et de calcul.
- Câbles et matériels de raccordement des réseaux de distribution.
- Câbles et matériels de raccordement des réseaux HT et THT.
- Dimensionnement et installation.
- Essais sur site - localisation des défauts.
- Câbles à courant continu.
- Câbles spéciaux, câbles à comportement amélioré au feu.
- Energie et communication associées.

Parallèlement aux conférences et discussions:

- une exposition de matériels (matériaux de base, câbles, matériels de raccordement, matériels de fabrication, matériels de pose, ...) a été organisée dans un hall spécialement aménagé à proximité immédiate du Palais des Congrès de Versailles,
- une quinzaine de films, vidéo ou diaporamas sur des thèmes variés (matériaux, matériels, montage, pose, ...) ont été présentés. Parmi ceux-ci une mention spéciale doit être faite d'un film montrant la dynamique du mouvement des charges électriques dans un matériau polymère soumis à un échelon de tension continue ou à une inversion de polarité,
- enfin, huit visites techniques ont permis aux délégués de découvrir des installations d'essais et des réalisations industrielles mettant en oeuvre des câbles à isolant synthétique.

Par ailleurs deux ateliers ont été organisés par la Société des Electriciens et des Electroniciens en liaison avec JICABLE dans le but de faire un état de l'art dans le monde sur deux sujets de grande actualité.

HT 87: Problèmes spécifiques posés par la mise en oeuvre de champs électriques élevés dans les câbles haute tension à isolant synthétique.

F 87: Comportement amélioré au feu des câbles.

Les actes de JICABLE 87 sont disponibles au Secrétariat Général JICABLE - 11 rue Hamelin - F 75783 PARIS CEDEX 16.

- EUROTTEST CON 89 - "European Test Conference"

This will be held from 11 to 14 April 1989 in Paris. Organising Committee Chairman: R. Cogne.

Information from Mr. R. Cogne - 36, avenue Jean-Jaurès - 95230 Soisy-sous-Montmorency - France. Tél. 39 89 03 46.

Technical Programme Committee Chairman: R. G. Bennetts, B. Schneider.

- Colloque INFAUTOM 88 sur la "Commande active généralisée"

Ce colloque organisé par les élèves de Sup-Aéro les 3 et 4 février 1988 (renseignements à Colloque Sup-Aéro - ENSAE - 10, avenue Ed. Belin F 31055 Toulouse CEDEX) sera consacré aux développements les plus récents de la technologie du CAG dans le cadre de réalisations prestigieuses comme la RAFALE, l'EAP, l'X 29, l'Airbus 320, Hermès. L'amélioration des performances intrinsèques de l'avion, qui en résulte, sera longuement débattue, ainsi que l'impact à terme sur les méthodes de certification et de maintenance.

- 1988 International Commission for Optics Topical meeting on Optical Computing

This Conference will be held in Toulon, from 30 August to 2 September 1988. For further information, please contact Professor S. Lowenthal, Conference Chairman at Institut d'Optique, Bât. 503, Univ. Paris XI, B.P. 43, 91406 Orsay Cedex, France or the Conference Services Office at IEEE Headquarters.

- 1988 Topical meeting on Optical Bistability (OBIV)

The Lasers and Electro-Optics Society will be co-operating in the organisation of this conference. It will be held on 23-25 March 1988, at the Langevin Centre in Aussois, France.

For further information, please contact Mr. Nasser Peyghambarian, Conference Chairman at (602) 621-6997 or the Conference Services Office at IEEE Headquarters.

- Thirteenth International Symposium on Discharge and Electrical Insulation in Vacuum (ISDEIN)

This Symposium will be held in Paris, CNAM, 27 to 30 June 1988.

Areas of interest cover all subjects related to electrical insulation and electrical discharges in vacua; from the fundamental processes involved to the technical applications, including the technological aspects of high voltage devices and specialized diagnostic methods.

"Vacuum" means here a residual pressure sufficiently low to ensure that the influence of the background gas is negligible after the initiation of a discharge. Discharges will then take place in an atmosphere of metallic or dielectric vapours emitted from electrodes and insulators which are heated and vaporized by prebreak-down currents.

A vacuum can be used either to provide an insulation as near perfect as possible between electrodes held at high voltages or, in other conditions, to obtain a rapid switching from the insulating state to the conducting state and vice versa.

Information may be obtained from Mr. Septier, Thirteenth ISDEIN Secrétariat, 292 rue St-Martin - 75141 Paris Cedex 03. Tél.: (1) 42 71 24 14. Télex.: 240 247 F.

- Journée d'études sur "la protection des équipements informatiques et les alimentations statiques sans interruption - (ASI)"

Cette journée, organisée par la SEE, a pour but de mieux faire connaître les problèmes liés aux ASI et de favoriser les échanges techniques entre utilisateurs et constructeurs (Renseignements: M. J. Maire ou A. Vicaud, EDF - Etudes et Recherches, 1, avenue du Général de Gaulle - 92141 Clamart - Tél.: (1) 47 65 36 78 ou (1) 47 65 32 08 - Télex: 204 426 F - télécopie: (1) 47 65 32 51).

- Fourth International Workshop on Atmospheric ICING of Structures

A workshop organized by Electricité de France, in Paris (5-7 September 1988) - after USA in 1982, Norway in 1984 and Canada in 1986.

Information may be obtained from Jean-Louis Lapeyre or François Pourbaix (Workshop on Atmospheric icing). Electricité de France - Direction des Etudes et Recherches, 1, avenue du Général de Gaulle - 92141 Clamart Cedex France. Téléphone: (1) 47 65 31 27 or (1) 47 65 31 09. Télex: 204 347 F.

- 1989 International Radar Symposium in Versailles

Honorary Chairman Professor Michel H. Carpentier
past-president French Section

Organising Committee Chairman Jacques Darricau
ENSAE and ENSTA Professor

Scientific Committee Chairman Jacques Dorey
ENSAE Professor, ONERA

Following the 1978 and 1984 meeting, the 1989 International Radar Symposium will be organized in Versailles, 24 to 28 April 1989. It is sponsored by the French SEE, the Electronic Industry Association and the IEEE Section. Radar remains one of the focal points of technics and technologies, from microwaves to signal processing. Transmitted signals are continuously evolving, with various typeset modulation and new power microwave generations.

Phased array antennas for electronic scanning, considerably increase Radar system performance, leading to entirely new concepts. At the same time, new technologies are emerging which may lead to new antenna techniques, integrating transmitter, receiver and radiating elements.

The working frequencies are reaching millimeter and optical waves, possibly using both domains. Signal processing increases its capacity, using high performance digital integrated circuits, new processor architectures and improved algorithms. From adaptive processing, spectral analysis, detection and plot tracking.

All these improvements permit the realization not only of efficient systems for surveillance and tracking, but also for imagery of targets from ground and space based Radars. In this rapidly evolving environment, it is of importance for Radar and System designers to exchange ideas and experience about technics and technologies, available or foreseen in the near future. Added to this specialist exchange, it seems important that Radar users should be informed about the new equipment which is being developed today and will be in the field tomorrow.

The 1989 International Radar Symposium is organized with the aim of achieving these objectives. It will take place just after the Image and Signal Processing Colloquium, GRETSI, to be organised in Nice, 17 to 21 April 1989, and in liaison with it.

Information from Mr. G. Bonami, GIEL, 11, rue Hamelin 75015 Paris - France - téléphone: (1) 45 05 71 69 - Téléc: 611045 F.

Nos collègues français publient dans des revues IEEE:

– **dans IEEE transactions on Biomedical Engineering:**

- Sept. 85: "Algorithm for automatic control of O₂ and CO₂ in artificial ventilation";

par J. Pernier, en collaboration (M. H. Giard, F. O. Bertrand, D. Robert),

- Avril 87: "Scalp current density mapping: Value and estimation from Potential Data";

par J. Pernier, en collaboration (F. O. Bertrand, F. Perrin),

– **dans IEEE transactions on Power Systems:**

- May 87: "Survey of the secondary voltage control in France: present realization and investigation";

par J. M. Tesseron, en collaboration (J. P. Paul, J. Y. Lecost).

Section Chairman:

Mr. J. Cladé, Adjoint Directeur, EDF International, 68, Rue de Fauborg Saint-Honore, 75008, Paris, France.

TURKEY By Dr. Levent Onural

A group of electrical engineers at the Bilkent University has decided to form an IEEE Turkey Section. The required petition is now being circulated and it is hoped that shortly the necessary number of signatures will be obtained.

IEEE members in Turkey are asked to contact Dr. Levent Onural for further information. His address is: Bilkent University, P.K.8, 06572 Maltepe, Ankara, Turkey. Telephone: 90-4-2664040 Ext 1263. Telex 42999 tcsn tr.

ISRAEL By Professor Ezra Zehbe

In addition to the routine National Symposia activity the Israel Section has started to plan and make preparations for two International Conferences:

The First International Conference on the Applications of Industrial Electronics Systems (CAIES) will be held in Jerusalem, Israel on 13-17 May 1990; it will be sponsored by three equal partners: IEEE Industrial Electronics Society, IEEE Industrial Applications Society, Israel Section through its local Chapter.

The Fourth of the CompEuro Series of Conferences, established by IEEE Region 8 and the IEEE Computer Society, will be held in

TelAviv, Israel in 1990. It will be devoted mainly to Computerised Systems and to Software.

Section Chairman:

Professor Ezra Zehbe, Electrical Engineering Department, Technion-Israel Institute of Technology, Haifa, Israel 32000.

UNITED KINGDOM & REPUBLIC OF IRELAND By Dr. B. Cory

The UKRI Section is co-sponsoring the following conferences:

- Seventh International Conference on Video, Audio and Data Recording – 21-24 March 1988 – York, UK.
- Second International Conference on Colour in Information Technology and Visual Displays – 29-30 March 1988 – Guildford, UK.
- Fourth International Conference on HF Radio Systems and Techniques – 11-13 April 1988 – London, UK.
- International Conference "Control '88" – 13-15 April 1988 – Oxford, UK.
- Fifth International Conference on Dielectric Materials, Measurements and Applications – 27-30 June 1988 – UK.
- Second Conference "Software Engineering '88" – 11-15 July 1988 – London, UK.
- Sixth International Conference on Electromagnetic Compatibility – 12-15 September 1988 – York, UK.
- 1988 Geoscience and Remote Sensing Symposium – 13-16 September 1988 – Edinburgh, UK.
- Fifth International Conference on Digital Processing of Signals in Communication – 19-22 Sept. 1988 – Loughborough, UK.
- A Computer Chapter Meeting on the "Application of Computer Techniques in Medicine" will be held in Imperial College, London, on 3rd March 1988.

As a contribution to the IEEE Region 8 25th Anniversary celebrations the UKRI Section is organising a forum on "Safety in Electrical and Electronic Systems". Its intention is to document the importance of the electrical and electronic engineering disciplines in modern societies, to recognise the responsibility of professional engineers for creating a public awareness of their work and its implications, to discover what lessons can be learnt from past experience and to pass on good examples of best practices, particularly in the field of safety. The forum will take place in April 1988 and because of the limited accommodation available, attendance will be by invitation only.

Section Chairman:

Professor Charles W. Turner, Electrical and Electronic Engineering Department, King's College, Strand, London, England, WC2 2LA.

GERMANY By Dr.-Ing. F. Coers

In Association with other Societies the German Section of Region 8 is co-sponsoring the following conferences:

1. Tenth International Conference on Magnetically Levitated Systems (MAGLEV). 9-10 June 1988 – Hamburg, FRG. Information from Professor Dr.-Ing. H. Weh, Institut für Elektrische Maschinen Antriebe und Bahnen, Technische Universität Braunschweig, Postfach 3329, D-3300 Braunschweig.
2. Microelectronics for Information Technology. 3-5 October 1988 – Berlin, FRG. Information from Prof. Dr.-Ing. K. Goser, Universität Dortmund, Lehrstuhl Bauelemente der Elektrotechnik, Emil-Figge-Strasse 68, 4600 Dortmund 50, Tx: 822 445 unido, Telefax: (0231) 75 15 32.
3. Computer Architecture and Operating Systems. 9-11 March 1988. Paderborn, FRG. Information from Dr.-Ing. F. Coers, Sekretariat German Section IEEE, Stresemannallee 15, D-6000 Frankfurt 70. Tel. (+69) 6308-221.
4. Communication in Distributed Systems. 22-24 February 1989 – Stuttgart, FRG. Information from Prof. Dr.-Ing. P. J. Kuhn, Institute of Communication Switching and Data Technics, University of Stuttgart, Seidenstrasse 36, D-7000 Stuttgart 1, FRG.

Section Chairman:

Professor Rudolf Saal, Inst. Netzwerktheorie, Technical University, Arcisstrasse 21, D-8000 München 2, FRG.

COMPEURO 88

Brussels, April 11-14 1988

SYSTEM DESIGN: VLSI, Concepts and Tools

Three parallel tutorials on April 11:

Software Reliability

Highly Parallel Architectures

Semi-Custom and Application Specific ICs

Scientific Sessions, Demonstrations and Short Presentations on April 12-14

Ask for the full programme and registration forms:

Jacques Tiberghien
Vrije Universiteit Brussel
Pleinlaan 2
B1050 BRUSSELS

Phone: 32 2 641.2905

Telex: 61051 VUBCO (B)

uucp: jgtiberg&info.vub.uucp

COMPMAIL+: CMP5469



Significant savings for registration before March 15



ICCC'88

9th INTERNATIONAL CONFERENCE ON COMPUTER COMMUNICATION

TEL AVIV, ISRAEL, OCTOBER 30-NOVEMBER 3, 1988

COMPUTER COMMUNICATION TECHNOLOGIES FOR THE 90s

THE CONFERENCE TOPICS WILL INCLUDE:

1. Communication Aspects of:

- a. Expert Systems
- b. Office and Factory Automation
- c. Work Station
- d. Standards
- e. Distributed Operating Systems
- f. Security and Privacy
- g. Videotext
- h. Human Factors
- i. Man-machine Interface

2. Data Transmission

- a. Optical Data Transmission and Switching
- b. Satellite Data Communication
- c. Packet Radio
- d. Electronic Fund Transfer
- e. Data Communication in ISDN
- f. Protocol Conversion

3. Networking

- a. Special Networks
- b. Local Area Networks
- c. Integrated Networks
- d. Wide Area Networks
- e. Metropolitan Networks
- f. Personal Computer Networks
- g. Corporate Networks
- h. Network Experience
- i. Network Management and Operation
- j. Global Network Service
- k. Congestion Control
- l. Packet Switching
- m. Protocol Specification and Verification

4. Open Systems Interconnections (OSI)

- a. Analysis and Specifications
- b. Standards
- c. Experience

5. Computer Communications Impacts on Society

- a. Regulatory Issues
- b. Legal Aspects
- c. Education Issues
- d. Support for the Disabled
- e. New Areas of Application
- f. International Cooperation

On Sunday, October 30, 1988 several half-day and full-day tutorials will be conducted.

For further information please contact:

Secretariat, ICC'88

P.O. Box 50006, Tel Aviv 61500, Israel
Tel: (972 - 3) 654571
Telex: 341171 KENS IL
Fax: (972 - 3) 655674

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08854-4150 USA

Egypt

By Prof. Abdel Latif I. Ahmed

At a well attended technical meeting in Cairo, a joint AP-MTT Chapter was recently inaugurated. The Chapter Chairman is Professor Samir Fahmy.



Left to right: Professor A. Y. Bilal-Vice-chairman Egypt Section; Dr. Rahmat Samir-Senior R & D Scientist Jet Propulsion Laboratory USA; Professor Abdel-Latif I. Ahmed-Chairman Egypt Section; Professor Samir Fahmy-Chairman AP & MTT Chapter.

Section Chairman:

Professor Abdel-Latif I. Ahmed, 59 Madinet El-Ilam, Fl.410, Agouza, Cairo, Egypt.

AFRICON '87 A SUCCESS — AFRICON '90 IN EGYPT?

By Dr. J. Baal-Schem, Region 8 Conference Co-ordinator

AFRICON '87, an International Workshop held in Abidjan and organized by Region 8, brought together 60 experts from Africa, Europe, the Middle-East and the United States to discuss the Future Development of a Technological and Educational Infrastructure in Africa. During three intensive working days – partly in Plenary sessions and partly in Working groups – problems, requirements and possible solutions were discussed by teams of highly qualified engineers, educators and technical leaders. The recommendations of the groups on Energy Systems, Telecommunications and Technical Education, were presented at the Closing Plenary Session.

The opening session, held at the African Development Bank Conference Room, was honoured by the presence of H.E. Bernard Ehui Koutoua, Minister of Industry for Cote d'Ivoire, who brought greetings from the President and the members of the Government. This session, chaired by Region 8 Director Dr. Hugo Ruechardt, included an introductory lecture on the Economic Situation as seen by a representative of the African Development Bank; other lecturers dealt with problems in Telecommunications and Education in Africa.

An additional Plenary session – chaired by Dr. J. Baal-Schem – included lectures by three eminent IEEE delegates: Technical Education, Telecommunication Technology, and Transmission Systems. An assessment of Future requirements in Electricity Supply was presented by the General Controller of the ADB and a research paper on the role of New Technologies in Africa was read by a scientist from Nigeria.

The core of the workshop was the group sessions, in which each of the participants could express his specific problems, the other members of the group suggesting possible solutions and recommendations. Three groups: Energy Systems headed by Prof. Aldana, Telecommunications by Mr. Drangeid, and Technical Education by Prof. Richter, discussed specific African problems. By the use of advanced moderation methods and the hard work of the rapporteurs – Prof. Braunstein (Energy Systems), Mr. Bohle (Technical Education) and Mr. Berner (Telecommunications) – each group concluded its discussion with a list of recommendations for future action.



Left to right: Dr. Jacob Baal-Schem (Region 8 Conference Co-ordinator); His Excellency Bernard Ehui Koutoua (Minister for Industry, Cote d'Ivoire); Dr. Hugo Ruechardt (Director, Region 8).

Group recommendations were brought to the Closing Session, chaired by IEEE President Elect for 1989, Dr. E. Pugh, who opened the session with a presentation on the IEEE's role in a Technical Community. Finally, Mr. Drangeid presented some concluding remarks and the Session – as well as the workshop – ended with an invitation from the Egypt Section, subject to official confirmation, to hold Africon 1990 in Egypt.

AFRICON '87 was organised by a Steering Committee consisting of the Chairman – Dr. H. Ruechardt, Regional Director and initiator of the workshop, Dr. Baal-Schem, Mr. Desai (assisted by Dr. Bishai), Mr. Drangeid and Prof. Raji. Many sponsors contributed to the success of this workshop; they included IEEE HQ, Region 8, ITU, Siemens, IBM, Degem, Motorola and the African Development Bank.

INTERNATIONAL COMPUTER CONFERENCE—CompEuro '89

CALL FOR PAPERS

CompEuro '89 will be held in Hamburg, Federal Republic of Germany on 8–12th May 1989 with the theme "VLSI and Computer Peripherals – Advanced Technologies and Trends". Letters of Intent to submit a paper, giving title and topic group should be sent as soon as possible to Prof. W. E. Proebster, IBM Laboratory, P.O. Box 1380, D-7030 Boeblingen, F.R.G. 500-1000 word abstracts are due by August 15 and camera ready copy of accepted papers by February 1 1989. The complete programme is as follows.

External Memories:

- Storage systems and devices based on semiconductor, magnetic, optical and other technologies.
- Hierarchies and system architectures for external memories and storage.
- Intelligent interfaces to peripheral memories.

I/O – I/O Systems and Devices for the Human Interface:

- Displays, e.g. CRT, LCD, ELD, PDP.
- Printers, e.g. inkjet-, thermal-, laser-.
- Keyboards, digitisers, scanners, mouse devices.
- Speech I/O.
- Human factors, e.g. noise and glare reduction, paper handling, software-assist functions.

Sensors and Controls:

- Smart sensors and actuators, data acquisition systems applied in robotics, process control, medical, environmental, alarm and security systems.

Computer Communications – Smart solutions for communication with peripherals:

- Advanced bus systems for direct attachment of peripherals to workstations and host systems.
- Advances in industrial LANs for plant flow automation, extended office systems.
- Integrated networks, e.g. the capability of ISDN and of other integrated networks to support peripherals.
- Heterogeneous communication systems, supporting a mix of peripherals from one or more manufacturers.

VLSI Technologies and Trends:

- Selection of technology.
- Standard versus custom design.
- Advanced tool designs.
- Design for noisy environment.
- Low temperature technology.
- Packaging.
- Advanced testing concepts.

The CompEuro '89 Programme Committee would welcome suggestions proposing the names and addresses of well-known experts who can present papers, especially review papers, which will strengthen the Conference programme. Proposals should be sent to Professor Proebster (address above) and will be equally welcome whether coming from the experts themselves or from other readers.

FROM THE REGIONAL DIRECTOR



First of all I send special greetings and my very best wishes for the New Year to all our IEEE members and to all other readers of the "Region 8 News".

The beginning of my second year as your Regional Director appears to be a good time to report on some of last year's activities and on the outlook for 1988. The two main Regional events since my last report in August 87 were our regular autumn Region 8 Committee meet-

ing in Yugoslavia and the Africon 87 workshop in Abidjan, Cote d'Ivoire.

Our Yugoslavia Section took care of us extremely well at the excellent Brdo conference site near Ljubljana. Most important for me at this very smooth meeting was an extended discussion on "IEEE Transnational"; it will certainly need many more initiatives and much further support from our side in the future, to strengthen the unique worldwide structure of our Institute, which makes it for many of us so attractive and valuable. Among specific actions in Brdo we finalised the financial support programme for our Sections to participate in the Sections Congress at Anaheim, California. This Congress has turned out to be a big success, with worldwide participation. An attractive programme brought about very good discussion and generated many new ideas for strengthening Section life in particular and for the Institute as a whole; I hope we shall feel its impact in our Region 8 Sections also. The final approval of the Board of Directors for our Regional assessment adjustment, starting in 1988, will allow us to continue in spite of the rapid dollar devaluation versus EEC currencies, with regional support programmes for the benefit of our active sections and members, where this would be necessary and useful.

At this point in my report I must tell you of the sad news that our Yugoslavia Section Chairman Mirko Vehovec has passed away far too early from a very active and happy life. As our host for the autumn committee meeting he had so well prepared everything but fell seriously ill just before the actual event and never recovered.

Now about Africon 87. You will already have been informed in previous editions of "Region 8 News" about this special workshop on the Development of a Technological and Educational Infrastructure for Africa. It was quite a challenge to organise this meeting of about 60 distinguished experts from as many as 16 African countries, together with another 16 international partners from Europe, Middle East and the United States. As a result of the well organised preparatory work of a most devoted conference committee and of many supporters, we finally had a wonderful meeting of three full days, with lectures, group discussions and deep insights into the African scene, its specific activities, challenges and problems. We had news coverage on African television,

radio and in the local press and enjoyed the interest of many official institutions. One very good result from Africon 87 was the spontaneous announcement from Ahmed Abdel-Latif that, subject to official approval, the Egypt Section would be willing to hold the next Africon Conference (1990) in Cairo. Our IEEE president elect for 1988 - Emerson Pugh, who was leader of the Abidjan US delegation, said in his closing speech that for him the experience of Abidjan was a very important preliminary to his presidency in 1989. After this pleasant start to our series of "Region 8 Anniversary" events, I am looking forward with great interest to two further workshops on society related engineering subjects, as they will be carried out by the Israel Section in March and the UKRI Section in April 1988. More information about these workshops and their respective targets is given in the specific Section news of this Region 8 News on pages 3, 5 and 7.

Our most demanding regional project for 1988 will certainly be the 25th Anniversary Celebration of Region 8 in Munich on 6-7 October, in conjunction with our Regional Committee's autumn meeting. Preparations are already well on their way for this exceptional event, where many leading representatives of national and international electrotechnical institutions within Region 8 will be invited to a reunion, together with the IEEE Executive Committee, the Technical Activities Board Operating Committee and many other distinguished guests. The highlight of this meeting will be three invited lectures on "Engineering in Society" given by outstanding guest speakers on the same principal subjects as those which will have been discussed earlier in our workshops.

1988 also brings a change in Region 8 management, since our new Director-elect Sven Olaf Öhrvik will take over as Deputy Director. Let me welcome him with my very best wishes for his coming period of office; he will receive all my support during his preparatory year for a smooth transition in 1989. Already now the election of Professor Öhrvik should give substantial support to all our Swedish friends in order to make Eurocon 88 in Stockholm a great success.

In order to stay within reasonable limits with my report let me just mention without further comment some other items of importance in Region 8 for 1988. The excellent work of many of our Chapters must find more recognition and support. CompEuro'88 in Brussels will be the next big occasion and a test for good co-operation between Regional and Society structures of the IEEE. A special anniversary action for IEEE membership growth in Region 8 is being started by Walter Proebster in this edition of Region 8 News; please give your personal support to this programme, which should make the IEEE even stronger in its many activities to support our interests and needs. Finally let me remind you of the excellent function our Region 8 News could have for you as your message carrier and particularly for your professional advertisements.

Dr. JACOB BAAL-SCHEM

Larry K. Wilson Transnational Award



Dr. Larry K. Wilson was an enthusiastic IEEE member who served the Institute in many capacities; he was particularly interested in transnational matters, an interest which he retained throughout his association with the IEEE. On his untimely death in 1983 the Institute, in honour of Dr. Wilson's contributions to its well-being, established two annual awards, one of which was for "The most Innovative activity related to Regions 7-10

which best exemplifies the transnational goals of the IEEE". A committee of three Past Regional Directors has, for 1987, made this award to Dr. Jacob Baal-Schem in recognition of his outstand-

ing efforts in developing the successful series of biennial "MELECON" Conferences.

Dr. Baal-Schem, Region 8 Conference Co-ordinator, has taken upon himself the difficult and delicate task of ensuring the smooth organisation of conferences in which his diplomacy has played a major part; those who have served on the committees of international conferences would find it difficult to overestimate the value of his experience and tenacity in bringing to fruition projects which have been both technically and financially successful.

Our Conference Co-ordinator travels extensively in connection with Regional conferences other than the Melecon series and is always ready with timely advice and suggestions, suggestions which lubricate those inevitably disparate points of view advanced by National Societies and IEEE entities; the result is a commendably homogenous conference organisation.

SECTIONS CONGRESS 1987

By Mr. R. C. Winton, UKRI Section Congress Representative

Held in Anaheim, California, on October 16-18, this Congress was the greatest expression of transnationalism in the history of our Institute. Nearly 350 participants (16 from Region 8) came from countries stretching from Finland to South Africa, from China to Europe, from Australia and New Zealand to the Continent of India, from South America to Canada and from every Section in the U.S. The U.S.S.R. was absent. Behind it all were many months of staff work, principally on the part of Field Services, a vast volunteer effort, and long and dedicated hours of behind-the-scenes work during the Congress.

It all created a great learning experience in the formal sessions and in the informal discussions. Not only did we learn about the two Congress topics – programme support for Sections, Chapters and members, and enhanced Continuing Education worldwide – but we also learnt about the varying conditions in different Sections. For instance, after my own presentation on “How national societies influence Region 8 Section activities” many people discussed the problems and asked for further details.

For me the most important revelation was that problems such as membership and subscription errors, difficulties with Headquarters, delays in communication and other problems which we encounter are experienced as much in Regions elsewhere (including the U.S.) as they are in Region 8. They are due neither to distance from Headquarters nor to any difficulty with language, but are common to all Regions – there is no discrimination!

Now let me say something about the work of the Congress. The following are what seem to me the most important Congress recommendations on Programme Support for Sections, Chapters and members:

- (i) provide a Headquarters electronic database, accessible worldwide, on speakers' programmes;
- (ii) provide information on Society programmes to non-U.S. Sections without a relevant Chapter;
- (iii) ensure early Section notification of IEEE events in their area;
- (iv) improve industry's understanding of the IEEE.

The session on Continuing Education included a presentation by Professor André Vander Vorst, Region 8 Continuing Education Co-ordinator, who emphasised that the need for IEEE Continuing Education material varies greatly among the Region 8 Sections, much material not being relevant to members' needs; he explained too, the problems presented to Sections outside the U.S. by freight charges, import duty and restrictions, variations in video standards, and the delay in obtaining material. The principal Congress recommendations on Continuing Education were that Headquarters should develop an electronic database, accessible worldwide, on the IEEE Transactions, textbooks and Continuing Education material available. Regions 8, 9 and 10 should have much more influence on the forward planning of educational material; Continuing Education material should use media which reduce costs (for instance paper instead of videotape) and which are better adapted to electronic transmission, e.g. Fax; the IEEE should give guidance which would enable other entities to produce suitable tutorial material; means should be found to reduce the total cost of IEEE membership and the cost of Continuing Education material for those with incomes of less than \$2,000 per annum.

A tutorial on Chapter/Society co-operation revealed that Societies would very much welcome news of Chapters, but that many Societies are small, and run entirely by volunteers, and have low incomes. Societies generally welcome proposals from Sections with a relevant Chapter, to hold a conference in their area.

There was also a tutorial on Individual Learning Packages (ILPs). A package consists of printed information and videotapes, carefully put together by experts, through which an individual can work at his own pace. However, the cost (\$320–\$360) almost certainly limits purchase to entities which can arrange for a Package to be used by a number of individuals. To assess an ILP, Sections can obtain a free copy of the ILP on “Spread Spectrum Signals and Systems” (the Section must pay the freight charge from Headquarters). Apart from this, ILPs are not available on loan for assessment; a suggestion that information on new ILPs should be circulated to Sections is being considered.

I found it most interesting that the recommendations on both the Congress topics called for the use of electronic communication. A small Region 8 group, to which I belong as Region 8 Long Range Planning Co-ordinator, started to investigate this over a year ago, and the Region 8 Committee subsequently set up a student study project. However, it is surprising that the initiative has come from Sections and not from the governing structure at Headquarters, especially since electronic communication is well within the Institute's field of interest.

This leads me to make public some of my thoughts prompted by a remark I heard during the Congress, “it might take two years before some of the Congress recommendations are implemented” – is our Institute able to act sufficiently quickly and to respond sufficiently quickly, to members' changing needs and to the changes in the rapidly developing technologies with which its members work? Given our present governing structure, decisions have to be made through a large committee network, a network to which new committees are added as new problems and needs arise, a network in which decision-taking is slow because many committees report to other committees before matters reach the apex of the governing structure, the Board of Directors. I have an impression that, while the speed of technological change is continually increasing and the needs of members are becoming more varied as our numbers grow, the speed with which the governing structure of the IEEE can react is decreasing. If I am correct, then it is a grave threat to our Institute's future; if I am not correct, I would warmly welcome an initiative from the governing structure, to take a far-reaching, global look at whether it can react quickly enough now, and whether it will be able to do so in the future.

INTERNATIONAL WORKSHOP

What has Society Gained from Technology?

By Dr. Jacob Baal-Schem

From 14–16 March 1988, scientists from Israel, Europe and the US will gather in Jerusalem to discuss the Benefits which Humanity has derived from Technology. The workshop will be organised by the IEEE Israel Section and is sponsored by Region 8 with the Co-operation of the Centre for Technological Forecasting at Tel-Aviv University. Its objectives are:

- To review past achievements of Electrical, Electronics and Computer Technologies which have been of benefit to Humanity.
- To suggest ways in which “What is yet to come” may affect society during the next 25 years.
- To make recommendations with a view to achieving additional benefits from technological developments now in their embryonic stage.
- To encourage the IEEE to hold workshops on these or similar topics.

Opening lectures on major advances in Science and Technology will be presented by: Prof. J. Ruina, former Director of DARPA and now Professor at MIT, US; Dr. C. A. Zraket, Vice-President of MITRE, US and Dr. A. Sasson from Unesco Headquarters in Paris.

The three subjects with which the workshop will be specifically concerned are: (a) Health and Medicine – a working group directed by Prof. Laniado, Head of Heart Surgery Department at Ichilov Hospital in Tel-Aviv; (b) Work and Production – Prof. Raz, Director of the Centre for Technological Forecasting and Chairman of the Workshop; (c) Interactions between humans and technology – Prof. Yaar, Dean of the Faculty of Social Sciences at Tel-Aviv University.

Each of these groups will review past achievements and examine the potential future for technology and its possible impact on society. Readers interested in participating are invited to contact the Secretariat c/o ORTRA, PO Box 50432, Tel-Aviv 61500, Israel. Tel. (972) 3-664825, Telex: 361142 ORTRA IL.

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Course Directors: Om P. GANDHI and Giorgio FRANCESCHETTI

Lecturers: P. Bernardi G. d'Ambrosio O. Gandhi M. Grandolfo
D. Justesen K. Mild S. Szmigielski S. Tofani

The Course Language will be English

In addition to formal lectures, a round table conference is planned, where, at the request of course attendees, special topics will be discussed.

For further information please contact:
Giorgio Franceschetti, C.N.R., I.R.E.C.E., via Claudio 21, I-80125 Napoli, Italy.
Tel: (+39) (0)81 632484; Telex: 722392 INGENA I; Fax: (+39) (0)81 634448.

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Further details on page 5 of this Region 8 News.

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Education (SCEE) 1101 Mass. Ave.
St. Cloud, FL 32769; (305) 892-6146.

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