

IEEE Region 8 newsletter



NEXT ISSUE – AUGUST

COPY DEADLINE – JULY 1

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
INCORPORATED

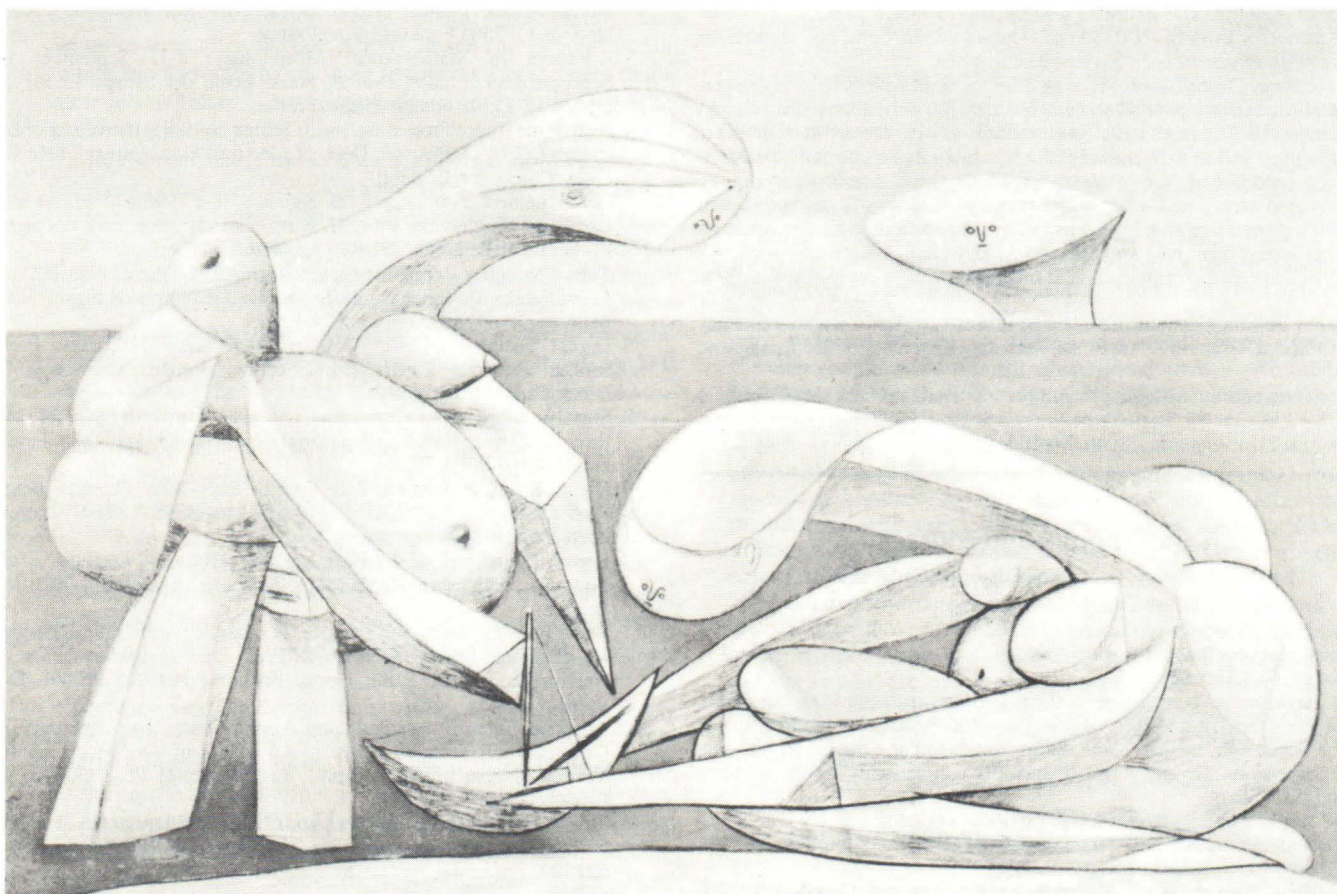
Editor: Dr. G. H. Byford, "Sandstones", Crooksbury Road,
Runfold, Farnham, Surrey, England. Phone: National 02518 2625
International +44 2518 2625

Regional Director: Basil W. Osborne
Rediffusion Engineering, 187 Coombe Lane
Kingston-upon-Thames, Surrey, England KT22 7DJ

No. 70 MAY 1985

MEDITERRANEAN ELECTROTECHNICAL CONFERENCE

Madrid, Spain. 8-10 October 1985



"The Bathers". Pablo Picasso is the most famous and the most controversial of modern Spanish painters. He started with simple objects and added to them the product of his fertile imagination.
(From: Picasso, Hans Jaffé – Hamlyn)

RADIO COMMUNICATION

DIGITAL SIGNAL PROCESSING BIOENGINEERING

SOLAR ENERGY

MELECON '85 will be held in the attractive Palacio de Congreso y Esposiciones of Madrid, one of Europe's most pleasing cities. Among the social events of the Conference will, on 8 October, be a cocktail party in Retiro Park at which your host and sponsor will be the Mayor, Professor Tierno Galvan, and on 9 October the Conference Banquet will take place.

In addition to a stimulating conference scientific programme – see page 2 – no visitor would wish to leave Madrid without taking advantage of the cultural and scenic offerings of the city itself and of its surroundings. The Prado Museum contains one of the largest collections of art in Europe and other city museums cater for almost every possible artistic interest; the palaces, monasteries and public buildings are not just boxes to house their contents but examples of a gracious architecture that has been displaced by the concrete jungles of our modern towns.

Those windmills made famous by Don Quixote and Sancho Panza may be seen in Mancha; the pride of knights in the middle ages was a sword made from the steel of Imperial Toledo, an elderly city set in one of nature's natural strongholds, and a mirror of the real Spain and of Spanish history; Segovia, at the foot of the Guadarrama mountains, a picturesque city where once a year, for twenty-four hours, and led by the Mayoress, women govern the town. To all these places, and more too, the Conference organisers have arranged visits, but you should try to afford a few more days, preferably with an "accompanying person" – you could fill pleasurably each one of those days.

And after Conferential hours do not just sit in the hotel, try the local gastronomic delights in one of the small but excellent cafés, you can eat your Kentucky fried chicken or fish and chips at home! Do not worry about the language, the Spanish are a kindly and generous race; many of them speak English and all will be patient with you. Welcome to MELECON '85.

Mediterranean developments MELECON 1985

By Dr. Jacob Baal-Shem and Professor Antonio Luque

The Third Mediterranean Electrotechnological Conference will feature more than 350 papers on recent developments and applications in electrical and electronics technology. The papers will be published as Proceedings of the IEEE Melecon '85 Conference and will be distributed at the conference. The Proceedings will consist of a set of four volumes, each covering one of the sections into which the conference is divided.

All presentations will be oral but at the end of each day's session, forty-five minutes will be provided for informal discussion on the topics presented during that day. There will be invited papers on Radio Communications and Solar Energy. Seminars or panel discussions are being planned and will be announced at a later date.

A subject to be introduced for the first time in Melecon Conferences is Bioengineering. One of the main topics to be discussed will be Hyperthermia (models and therapeutic applications) and a surprisingly large number of papers will be devoted to the study of sound and voice as diagnostic aids. A group directed by Carlos Hermander of the Puerta de Kierro Clinic of Madrid will discuss methods and instrumentation for cardiac arrhythmia surgery.

In the field of solar energy, Professor Furlan from Yugoslavia will give an invited lecture on Fundamental Studies of Solar Cell Physics; other invited speakers have chosen as their subjects: the Orientation of the Spanish School of Photovoltaic Concentration, and a presentation of work done on the Solar Platform of Almeria. The technical sessions will include a paper by Professor Larry Kazmersky from SERI (USA) on Thinfilm Solar Cells, and another on the work of Israeli scientists on Photovoltaic Systems.

The subject of Digital Signal Processing will be dealt with in sixteen sessions, to be conducted in two parallel series of lectures; 160 papers have been chosen from among the 210 submitted. Two sessions will be devoted to Computer Networks; there will be a discussion of the possibility that a Computer Network might be established for research institutes and universities in the Mediterranean area. The themes of the principal sessions will be: Speech and Image Processing; Hardware Implementation; Applications in Communication Systems (Radar, Sonar, etc.) and Spectral Analysis and Adaptive Systems. All prominent European groups on digital processing will be represented in these sessions.

In Radio Communications there will be sessions on Active Radio-frequency circuits, Passive RF circuits, Antennae, Radiating Systems and Electromagnetic Theory.

Information and an advance programme are available from: Prof. Antonio Luque, MELECON '85, Instituto de Energia Solar, ETSI Telecommunication, UPM, Ciudad Universitaria, 28040, Madrid, Spain.

Tapes, books and courses

By Prof. K. Goser, Continuing Education Correspondent

Video courses are available on the following topics:

1. VLSI - Its impact on your career.
2. Technology for the Information Age.
3. Design of VLSI systems.

They have much to recommend them and are available from the IEEE. Unfortunately the cost is \$1,500; yet another victim of the dollar interest rates. It might be possible to organise some sharing arrangement - the Editor will pass on any suggestions. Do not forget to consider compatibility before spending your precious dollars.

The Computer Society has the following books available:

1. Selected reprints on VLSI Technologies and Computer Graphics - AA491, \$20.00.
2. VLSI - The coming revolution in Applications and Design - AA288, \$20.00.
3. VLSI Technologies - Through the 80s and beyond - AA424, \$20.00.
4. VLSI Support Technologies (Computer Aided Design, Testing and Packaging) - AA386, \$19.00.

Silicon Foundries for Universities

There is growing requirement for universities to have access to facilities for the fabrication of Integrated Circuits for research into all aspects of IC technology. In Europe there are three sources:

1. Edinburgh Microfabrication Facility of the University of Edinburgh, Scotland.
2. Laboratoire IMAG at Grenoble, France.
3. Gesellschaft für Mathematik und Datenverarbeitung at Sankt Augustin, Federal Republic of Germany.

Interested members should write to Professor Goser at the address given below. They should describe their tasks and he will establish contact between the parties.

Further information on any of these subjects may be obtained from: Prof. Dr. K. Goser, Continuing Education Office of IEEE, Region 8, Bauelemente der Electrotechnik, Universitat Dortmund, PO Box 50 05 00, D-4600 Dortmund 50, FRG.

The Microwave Theory and Techniques Society is to produce a special issue of the Transactions on "Phased Arrays for Hyperthermia Treatment of Cancer": it is expected to appear in May 1986. The Guest Editor, Professor James C. Lin, is looking for original papers concerned with theoretical, experimental and clinical methods for improved heating of superficial, accessible and deep-seated tumours. Topics of interest include, but are not limited to, the following areas:

- Noninvasive ultrasound, RF and microwave techniques.
- Interstitial and implanted arrays.
- Antennas in lossy media.
- Optimal architectures and configurations.
- Control strategy and excitation schemes.
- Thermal field mapping.
- Numerical techniques.

Authors are requested to submit four copies of their manuscript by 1 October 1985 to: Professor James C. Lin, Department of Bioengineering, University of Illinois at Chicago, Box 4348, Chicago, IL 60680, USA. Phone: +312 996-2331. 21

Short Courses in Region 8

The European Association for Signal Processing will in 1985-6 hold a series of Short courses. The programme is as follows:

1. Image Processing for Industrial Applications. 11-14 1 June 1985. University of Delft, Netherlands. Prof. I. T. Young, University of Delft, Dept. of Applied Physics, Lorentzweg 1, NL-600 GA, Delft.
2. Industrial Vision by Mathematical Morphology. 1-5 September 1985. Fontainebleau, France. Prof. J. Serra, Ecole des Mines, 35 rue Saint Honore, F-77305 Fontainebleau, France.
3. Advances in Mathematical Morphology. 8-12 September 1985. Fontainebleau, France. Prof. J. Serra, Ecole des Mines, 35 rue Saint Honore, F-77305 Fontainebleau, France.
4. Real-Time Image Processing. 16-20 September 1985. University of Essex, England. Prof. D. Pearson, Dept. of Electrical Engineering, University of Essex, Colchester, England.
5. Le Traitement Numerique des Signaux. 18-27 September 1985, EPF Lausanne, Switzerland. Prof. M. Kunt, Lab. de Traitement des Signaux, 16 chemin de Bellerive, CH-1007 Lausanne, Switzerland.
6. Time Frequency Representation of Signals. 23-28 September 1985. ICPI Lyon, France. Prof. B. Escudie, Service du Traitement du Signal, 31 Place Bellecour, F-69288 Lyon, Cedex 1, France.
7. Digital Telephony. 21-25 October 1985. Istanbul, Turkey. Prof. B. Sankur, Dept. of Electrical Engineering, Bogazici University, PK2. Bebek, Istanbul, Turkey.
8. Signal and Radar Data Processing. Late 1985. University of Naples, Italy. Prof. A. Farina, Radar Engineering Dept., Selenia Spa., Via Tiburtina km. 12.400, I-00131, Rome.
9. Digital Signal Processing. Late 1985 or early 1986. Ostende, Belgium. Prof. J. Catrysse, Katholieke Industriële Hogeschool, West-Vlaanderen, Zeedijk 101, B-8400 Ostende.
10. Speech Processing. 12-14 February 1986. Brussels, Belgium. Prof. R. Boite, Fac. Polytechnique de Mons, 31 Boulevard Dolez, B-7020 Mons, Belgium.
11. Wave Filters: Theory and Practice. February or March 1986. University of Bochum, West Germany. Prof. A. Fettweis, Lehrst. für Nachrichtentechnik, Ruhr Times. Bochum, Postfach 102148, D4630 Bochum 1.
12. Adaptive Filtering: Methods and Applications. 24-25 February 1986. University of Technol. Vienna, Austria. Prof. W. Mecklenbrauker, Institut für Nachrichtentechnik, Busshausstrasse 25, A-1040 Wein, Austria.
13. Capteurs et Systemes Associes. April 1986. EPF Lausanne, Switzerland. Prof. P. Robert, Laboratoire de Metrologie, 16 chemin de Bellerive, CH-1007 Lausanne, Switzerland.

Swedish security the Carnahan conference

A conference on "Security" might be thought something of a contradiction, since its public discussion could presumably lead to "Insecurity", by providing inspiration for those whose aim is to breach security. Nevertheless, such breaches exist and in so many ways are now commonplace; the cost to society of these criminal activities is enormous and there is a clear need for protection of many different kinds. Neither should we forget the defenceless individual whose privacy suffers from a violation of data base security, nor the supermarkets, shops, banks, airports and public transport - there is much to be done. We may perhaps exclude the efforts of those schoolboys who manage to break into national defence networks.

From 12-14 August 1986 Sweden will play host to the International Carnahan Conference on Security Technology. It will be held in the Chalmers Techniska Hogskola in Gothenburg, in conjunction with the College of Engineering at the University of Kentucky, USA, with the support of other international and Swedish technical societies. The Conference will emphasise research and development aspects of security and consider the implementation

of monitoring and control systems, automatic identification and authentication, secure computing and data systems, and novel developments in communication and sensor technology.

The Conference language will be English. The programme, registration and other information is available from: Dr. Carl Axel Wannernskog, Chalmers Tekniska Hogskola, S-41296 Gothenburg, Sweden.

There will be excursions to local places of technical interest and a ladies' programme will be included.

News from the Sections

GREECE

By Dr. S. I. Stassinopoulos

With the co-operation of the Greece Section, the Department of Computer Science at the National Technical University of Athens organised a series of six lectures on Computer Communication and Data Networks. The seminar was held in January 1985 at the new departmental building on the Zografou campus. All the lectures were given by Professor Dimitri Bertsekas of MIT, who is a recognised authority on control, optimisation and computer networks. Attendance was high among both graduate and undergraduate students from the university, and there was substantial support from IEEE members in Greece. Subjects included: Layering and Network Protocols, Local Area Networks and Multiple Access methods, and Routing and Flow Control in Public Data Networks.

The Section's congratulations to Professors E. N. Protonotarios, C. C. Halkias, J. Tegopoulos and M. Strintzis on the award of IEEE Centennial Medals. They received their awards on 1 February from the Minister of Research and Technology at a reception given by the Greece Section; it was held in the Zografou building of the National Technical University.

FRANCE

By Professor Michel H. Carpentier

The France Section now has more than 1000 members of whom some 150 are students. Among the most interesting meetings of 1984 were Microwave Antenna Technology, Digital Image Processing, and Signal Processing. The Section participated in the International Radar Conference, attendance at which was in excess of 500; it was organised by SEE and GIEL and the Conference Chairman was the Chairman of the Section.

The principal effort of the Section is now directed towards the forthcoming EUROCON '86 which is being organised in co-operation with SEE, GIEL and EUREL; it has the title "Advanced Technologies and Processes in Communications and Power Systems", and will be held in the Palais de Congres de Paris from 21-23 April 1986. The Chairman of the organising committee is Doctor L. J. Libois, past Chairman of the France Section and Professor Carpentier is Chairman of the Programme Committee.

The Conference will give participants a good idea of current technologies and also the evolution of techniques and architectures used in modern electrotechnology; of particular interest at a time when technology is changing so quickly, as for instance in VLSI, integrated circuits and fast parallel processing. Their impact on our economy and way of life will be discussed. The head of the ESPRIT programme has accepted an invitation to lecture on the situation of ESPRIT at that time; several other well known lecturers will give tutorials on the evolution of technology, information processing machines, the organisation of software, the evolution of communications, and the problems of energy production. Professor P. Aigrain, Fellow IEEE and a past Research Minister in the French Government, will be among the speakers.

The end of April is generally a very agreeable time in Paris, although the city is well known for its other agreeable activities. Delegates should be able to combine the advantages of a first class technical conference with the gastronomic, cultural and social attractions of one of Europe's most pleasant cities.

No room for middle age

Those illustrious bodies the Board of Directors and the Technical Activities Board from time to time concern themselves with the young and the old; occasionally to the exclusion of the remainder. They would like it made known that they encourage reduced conference fees for Life Members, the essence of their encouragement being contained in a policy formulated in 1978.

"Reduced fees, or waiver fees, or fee differential for Students, for retired Members, for Life members, and for special registrants . . . are permitted at the discretion of the Conference Committee."

The \$64,000 question is not what do the Lords Spiritual in New York encourage but what practical steps do the Commoners on the Conference Organising Committee actually take; no doubt all IEEE Conference Committees discuss this matter at length, before publicising their familiar decisions in the conference brochure.

You might wish to know

The Board of Directors was extremely concerned that some members received 1984 ballot papers too late for them to register a vote - remedial action has been taken; the papers will be posted earlier.

High USA interest rates, and the consequent rise in the value of the dollar, have the effect of increasing the cost to Region 8 members of all IEEE facilities provided from the USA. Particularly serious for some Sections is the cost of membership in relation to Engineers' salaries in those areas. The Region 8 Director has asked all Section Chairmen to provide him with information which will enable the IEEE to consider what action might be taken to alleviate the financial burden.

Funds are available to increase the financial support which Sections receive from IEEE Headquarters. The Region 8 Director has asked Section Chairmen to submit plans which Sections would like to put into operation, but are unable to do so without additional financial support; particularly welcome would be schemes which may result in an increase in the number of members in the Section.

IEEE relations with oriental countries are becoming less distant; there is reasonable hope that a Section will be established in China. At the invitation of the Popov Society, the IEEE President, in company with the President Elect, will be visiting Moscow shortly.

The IEEE has warned the US Secretary of Defense that restrictions on technical exchange will "threaten the technological superiority of the US". It seems most unlikely, however, that this warning will result in a relaxation of US government restrictions on the presentation of conference papers by US government personnel, especially by staff connected with defence. What will threaten "Region 8's technical superiority"?

The Israel Section has established the first Engineering Management Chapter in Region 8.

Who said that 18 Univacs would satisfy the computing needs of the entire United States? When did he say it? IEEE member Eric A. Weiss is anxious to establish the facts. The Editor will forward letters to Mr. Weiss.

Israel has some 6000 electrical engineers, 700 of them on the Section roll. Its recent Electronics and Electrical Engineers' Convention attracted an attendance of 1500 and presented more than 100 papers to five parallel sessions. Papers were read in Hebrew on a wide variety of subjects but the proceedings were in English. Enquiries to Dr. D. Biran, PO Box 3474, Tel Aviv 61033, Israel.

One of the most unusual Centennial messages received by the IEEE was written on a microchip; the letters were 50 microns in width.

The IEEE ended the year with more than 260,000 members, the number is growing at an increasing rate.

If you are one of those who have not paid your annual subscription you might remember that it could cost you money to rejoin.

Later this year you will receive a ballot paper which will for the first time include candidates for the Region 8 Director Elect. The person elected will serve during 1986 and will automatically become Region 8 Director from 1 January 1987 to 31 December 1988. You will, in effect, be voting for the next Region 8 Director.

Portugal is under consideration for MELECON 88; more news will be available following the Region 8 Committee meeting in October next.

The Standards Board of the IEEE is planning a two-day seminar on Electric Power Supply Systems for Nuclear Power Generating Stations. It will be held in Madrid in mid-November 1985 and enrolment will be limited. Details from Arnold Robey, North East Utilities, PO Box 270, Hartford, Connecticut, 06141-0270, USA. Phone (203) 665-3157.

ESSDERC '85 will be held from 9-12 September 1985 in Aachen, F.R. Germany - Solid State Devices: Microelectronics. ESSCIRC '85 will be held from 16-18 September 1985 in Toulouse, France - Solid State Circuits: VLSI, CAD and Testing.

In Stockholm from 12-16 June 1988 there will be EUROCON 88; on the same occasion as the 100th anniversary of the Engineering Society of Sweden, the 25th anniversary of Region 8, and the 75th issue of the Newsletter. Your presence is requested. The Conference will be co-ordinated with ISCAS 88 in Helsinki. Proposed subjects: Digital mobile telephones; ISDN local networks; Digital signal processing, advanced radio concepts.

Headline from a UK technical newspaper:

Council acts on VDU pregnancy risk

(Surely, the ultimate in Biotechnology! - Ed.)

Would you believe it?

Once upon a time there was a Little Journal; he was born in a printing office in Olive Branch, Mississippi, in the New World. His one ambition was to travel to Europe and see London, Ruritania and other faraway cities; and to meet the youthful engineers of Region 8. So as soon as he was big enough he said good-bye to his father, Big Spectrum, and entered a container – he waited.

During the next few weeks many of his fellow journals arrived to travel with him to London. Now when the container was comfortably full it was sent to a Mr. Forwarding Agent in Memphis, Tennessee – who waited. Some while later Little J was overjoyed to hear that they would all leave for New Orleans and from there go to the Old World in a beautiful ship, the Sealand Adventurer; but it was not to be, he missed the boat – he waited, dismayed. The kindly Mr. Forwarding Agent worked hard and found another ship, the Sealand Leader, and made all the complicated arrangements for Little Journal and his friends to have special accommodation therein; but disaster once more, he missed the Sealand Leader too – and waited, his pages sad and deteriorating. Time passed. A new ship appeared and with a great effort Mr. F. Agent managed to find space for our Little J's container; everyone inside was delighted that at last they were on the high seas, heading for London. But, there in the middle of the Atlantic Ocean, the ship's driver received a message by means of a new electric technology "the wireless"; the ship was diverted from London the Felixstowe, where it arrived; and waited.

All were anticipating their first sight of the English countryside and their first taste of warm English beer. Disappointment again; it was found that inside the container was an important oil rig consignment for the Islands of Orkney. No daylight was allowed to enter the container and it was taken to the arid deserts of Aberdeen, in sunny Scotland. At last the container was landed – but how to get to London? Our Little J was allowed to come out into the fresh air and together with all his friends, boarded a flying machine which, only two exciting hours later, arrived in London; here they were taken to the British Customs Department – they waited.

Little Journal, the October issue, started from Olive Branch, Mississippi in mid-September and arrived late, tired and limp in London on 14th December after 90 disappointing days. He remembered that his cousin, Scientific Yankee, had left New York on Concord and arrived in London four hours later, he remembered also that his great great grandmother, May Flower, started from England with a cargo of British exports and landed in the New World after only 64 days sailing.

He complained to the Chairman of the Section, who was very kind and complained to the Director of the Region; he too was kind and complained to Big Uncle IEEE, who lived in New York. Uncle IEEE complained to a committee, which appointed a sub-committee, and that formed a working party – they all waited.

No doubt many of you in Region 8 will know of similar sad sagas; the subject in general has been discussed for some years without any remedial outcome, but let us go from the general to the particular. It would help the new Editor, whose address is on the front of this Newsletter, if those with specific information on this subject of Journal problems would write to him; he will transmit all the evidence through the proper or improper channels to the "appropriate authorities" – and wait. Thank you.

For life

This is how you become a Life Member (of the IEEE). First calculate, or estimate, your age; it does not seem to matter whether you base this on the day of your birth, the preceding January or the succeeding December. If from then until now is less than 65 years you are ineligible. Should the result be 65 or greater then to that number you add the number of years of IEEE, or its predecessor societies, membership; again the basis of the estimation is of no great importance – it could be the tax year, the date on your application form, the date of your formal acceptance into the flock, or by means of whatever transnational calendar it has been your tribal custom to follow. If the answer to that calculation is 100 or more then you qualify, if it should be less than 100 you must wait.

Suppose you qualify: then an individual with not less than five years of Society membership immediately prior to attaining Life Membership may continue in the Society without fee payment. Thus the LM would receive free of charge all technical periodicals – Transactions, Journals, Magazines – offered by each Society for which the five year requirement is satisfied. Are you with me so far? To avoid mailing unwanted publications, Society Life Members, but note, not Life Members, are asked every year to confirm their continued interest in requested publications in writing – there must be some unwritten publications somewhere! But, there are two options.

1. Limited Service. You remain a member of the Society, but receive only Newsletters, Conference announcements and other special mailings.

2. Full Service. In addition to the above (i.e. 1., or perhaps the previous paragraph) you receive Magazines, Transactions and Journals that you list on the form which is sent each year in July. But note.

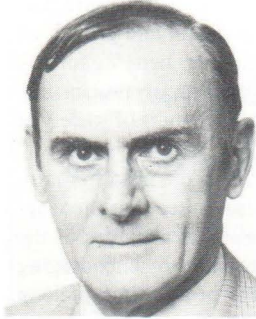
As a Life Member, you automatically receive Spectrum (unless indicated in writing otherwise – the purpose of writing "otherwise" is not immediately clear) but all other publications – Conference Records, Proceedings of the IEEE, IEEE

Press Books, IEEE Membership Directory, IEEE Standards Dictionary of Electrical and Electronics Terms, etc., are available at regular members' rates.

The advantage of this simple procedure is obvious: it is unambiguous and cost-effective – the intellectually geriatric will in one way or another automatically exclude themselves. If, in order to make the calculations indicated above you used a slide rule you are clearly eligible; welcome to the club.

Director's message

To Members in Region 8



Basil W. Osborne
Region 8 Director

The Section Chairmen of Region 8 met at Herzlia in Israel on 24–25 March for their Regional Committee meeting (two days solid discussion). Regional meetings are repeated twice a year at different locations, in countries where we have active Sections. The next will follow MELECON 85, at Madrid in October. One of the many matters on our agenda was a proposal for a new and important joint venture in collaboration with the Computer Society and with the financial involvement of other bodies; your Regional committee approved this proposal for an International Computer Conference in Europe. Obviously, we will take care to avoid conflict of interest with other conferences with which we are engaged, such as EUROCON 86 in April in Paris, on the

subject "Advanced Technologies and Processes in Communication and Power Systems".

Please support our new Newsletter Editor, Dr. G. H. Byford, by sending him as much useful material as possible, and help us to finance the newsletter by bringing the circulation and advertising rates to the notice of any members or non-members who are responsible for handling advertising material. Prof. R. C. G. Williams continues to deal with the production of our Newsletter, and we owe him our thanks for his valued services in this matter. Our thanks go also to Miss Gretta Gouriet for her useful contribution to the Newsletter production over the last few years.

If you have any problems, or if you have any suggestions as to how the IEEE can serve you better and give you better value for your subscription, do not hesitate to inform your local Section.

For students

By Prof. P. G. Farrell, Student Affairs Correspondent (UKRI)

The UKRI Section concerns itself with two main student activities: the first is to enrol as many new student members as possible. As part of an active student membership drive, student counsellors at over fifty UK universities and polytechnics have been appointed, located in departments of electrical engineering and related subjects. Application forms, publicity material and other IEEE student matters are circulated too, and co-ordinated by, these local officers. To encourage new student members, a reduced subscription (currently £4.00) is offered for the first year of membership.

The second activity is to encourage student members to participate in the IEEE Undergraduate and Postgraduate Paper Contest, held each year in Region 8. Each new student member is sent details of the contest, together with an invitation to take part. Not many papers have been put forward in the recent past; the reasons for this are not at all clear but it may be that contests of this kind are more suited to postgraduate than to undergraduate members of the universities. The Section will continue to promote this worthwhile activity.

As a part of EUROCON 84 at Brighton, UK, the Section organised an Educational Workshop, with tutorial lectures on Computer Networks and Sensory Interfaces in Computer Control. There was in addition a panel discussion on matters of interest to student engineers.

The UKRI Student Counsellor is Professor P. G. Farrell, Electrical Engineering Laboratories, The University, Manchester M13, England.

The Regional Activities Board has:

Approved an increase in the number of Outstanding Student Member Awards available to each Student Branch from one per branch to one per 100 branch members or fraction thereof.

Requested the vice-president of Regional Activities to communicate with the vice-president of Technical Activities on the desirability and related costs of having a Technical Activities Representative sit on the RAB Student Activities Committee.

Approved a modification to the RAB Student Activities Committee Charter whereby the composition of the RAB Student Activities Committee will include Student Representatives from Regions 7–10 at the option of the Regions 7–10 Directors.

Approved Student Recognition and Support Guidelines for recommendation of adoption by the IEEE Awards Policy and Planning Committee.

Approved the participation of Regions 7–10 in the RAB Section and Student Branch Growth Awards beginning with year end 1984 results.

Hopes, claims and aspirations

1986 ELECTION FOR PRESIDENT-ELECT

Statement by Henry L. Bachman

My objective, as President of the Institute will be to assure that the Institute will provide the basis for the health and growth of the profession and its members, for their own benefit, for the benefit of the electrotechnology industry and supporting institutions and, as a result, for the benefit of the members of society at large.

Essential to accomplishing this objective is the need to maintain the vigor of the technical societies and to see that these activities are not compromised. The professional activities of the Institute must support these technical activities by encouraging and assisting able engineers to join and to prosper in a lifelong career within the profession. These activities together, must take action to strengthen the profession's image and its contribution to public policy and, by so doing, create the environment that is necessary to enhance the strength and stature of the profession and its members.

More specifically, there is a need to derive more benefit and broaden the impact of technical activities by better application of the resources and capabilities provided by the Regional and Educational activities, particularly as to the need to increase the utilization and make more productive the engineers that are already working, to prevent the loss of older engineers from the profession, and to be more responsive to the careers in industry with requirements for competitiveness in product cost and quality. This requires improving the ability of the Institute to deliver relevant technical information to the members, economically and effectively, both to individuals or local groups, and with emphasis on life-long learning through continuous education.

There is a need to assure the freest dissemination of technical information, as embodied in presentations or products, consistent with proprietary needs and national security, in order not to discourage the economic and intellectual pursuit of technological innovation. There is a further need to encourage the contributors of such innovation by proper recognition of their rights to intellectual property.

There is a need for the Institute to direct more attention to external affairs. With employers of engineers, for example, to further the understanding of the contribution of the Institute to all enterprises. With institutions at the local level, especially when certain member problems and concerns have more relevance and urgency regionally, than nationally, and with the media, and the public they serve, to combat the limited awareness and often, therefore, the low regard for technology, by speaking out knowledgeably about technology to the government and the public at large. The recently established Industrial Relations Committee, increased USAB interactions, through PACE, with local governments, an IEEE Annual Conference, and more media attention to Institute awards are examples of such public information programs which require more emphasis.

Statement by Jose B. Cruz, Jr.

Extend technical and educational services to a broader member base

IEEE is the largest technical professional society in the world. It disseminates numerous major advances in the field through its technical publications and technical conferences throughout the world. Our publications and conferences are preeminent but we need to extend our publications and conference activities to serve a broader member base. We should have more offerings of tutorial and practice-oriented material to assist our members in their career-long professional development. We need to develop effective delivery mechanisms using our own computer/communications technology.

Continuing education is for everyone—Advances in computers, communications, microelectronics, electronic materials, optoelectronics, electromagnetics, systems, power and energy, and other areas have been dramatic in recent years. IEEE members must continuously learn a significant amount of new material to maintain technical viability. The nature of our profession demands that life-long learning, in its broadest sense, occupy a central place in our individual activities.

Enhance opportunities for professional development—The most critical factor affecting the professional development of engineers is the presence of challenges for creativity and opportunities for growth in the work environment. IEEE should work with industry leaders to address the productivity problem through greater incentives for professional growth. We need to match our educational offerings with industrial challenges at the workplace.

Improve communications—We need to express our concerns and opinions to IEEE officers. Our representatives want to hear from us so that they can represent us more effectively. More communications with our local Section/Chapter officers, Society officers, and Institute officers should lead to a more effective organization.

Forecast engineering manpower demand—When demand exceeds supply, more high school graduates are induced to seek a career in engineering. Unfortunately, there is usually a lag of four to five years before an increase in supply is felt. This could then lead to an excess supply of engineers. We need longer term forecasts to improve stability. We must be very careful not to overestimate demand.

Fight Age Discrimination—IEEE should assist industry to achieve a more effective engineering manpower utilization. IEEE must assist its membership against age discrimination practices which may occur in advertising, early retirement, employment, promotion, transfer, or other forms. IEEE should support those industry leaders who create the necessary environment for employed engineers to have full and productive careers.

We Need Your Feedback

Based on my conversations with numerous IEEE members throughout the world I know that we need more services for technical and professional development in our stride for greater productivity, and we deserve improvement in our social and economic status. I believe that I have broad support for my goals to improve member services and to enhance the status of the engineering profession. I urge you to express your feedback by exercising your right to vote.

One of these will for one year direct the affairs of the IEEE.

Write to them if there's something you want to ask.

Vote for he who gives you a satisfactory reply.

VOTE! If you don't, don't complain.

Conference report

Electromagnetic compatibility (EMC)

From our Swiss Correspondent

"EMC is the ability of an electric device to operate satisfactorily within its electromagnetic environment, without causing unacceptable interference with other electric systems."

This, according to the organisers of the 6th Zurich Symposium on that subject, is the definition of Electromagnetic Compatibility. From the topics covered by EMC '85 the definition must number among "electric devices": printed circuit boards, lightning, humans, bacteria, nuclear electromagnetics, data transmission, mobile communications, microwave ovens, railways, home entertainment, co-processing satellites, VDU's, and automobiles; a formidable catalogue which seems to leave untouched hardly any facet of modern life. It is not then surprising to learn that 120 papers, 20 conference sessions, six workshops, two discussion panels, a symposium dinner, an authors' lunch, an exhibition, and a ladies' programme, were required to deal with a subject which in so many subtle ways affects the lives of us all. And to debate the unlimited facets of its problems and potential came 850 participants from 26 countries, accompanied by 43 exhibitors and a goodly selection of ladies. Although the USA remained, as on previous EMC occasions, the major contributor, the rest of the world increased its share in comparison with the previous Conference in 1983.

Such on these occasions is the rich variety of spoken English that at times it was the English themselves who experienced verbal difficulty. It is a substantial compliment to both speakers and listeners that so many enthusiasts were prepared to concentrate for so long in a foreign language; no easy task and surely a source of great satisfaction to the organisers, who have good reason to be pleased with the results of what must have been many hard-working hours both in and out of committee.

The Conference Proceedings may be obtained (in exchange for 100 Swiss francs) from Dr. T. Dvorak, ETH Zentrum-IKT, 8092 Zurich, Switzerland, Europe. The next EMC Symposium and Technical Exhibition is planned for March 1987.

Late news

The third IFAC/IFIP International Symposium on Computer Aided Design in Control and Engineering Systems will be held in Copenhagen on 31 July-2 August 1985. It is co-sponsored by the IEEE Control Systems Society and the IEEE Denmark Section.

There will be technical sessions on: I/O Communications, Development and Evaluation of Hardware/Software Systems, Universal and Specialised CAD Packages, Electric Power Plants, Electric Power Systems, Electrical Networks, Electronic Process Control, Transportation Systems, CAD/CAE/CAM Systems, and Mathematical methods.

Details from: Danish Automation Society, Build 229, Technical University of Denmark, DK-2800 Lyngby, Denmark. Telex: 37529 DTHDIA DK.



THE CITY
UNIVERSITY
LONDON, ENGLAND

MSc/Diploma Programme in INFORMATION ENGINEERING

A one-year course commencing 30 September 1985 with major specialisations in:

CONTROL ENGINEERING
MEASUREMENTS AND INSTRUMENTATION
ELECTRONIC DIGITAL SYSTEMS
ROBOTICS
SENSING AND CONTROL
MEASUREMENT AND INSTRUMENTATION IN MEDICINE

Opportunities for research also available.

Further information and application forms are available from:

Senior Tutor (MSc Course)
School of Applied Electrical Engineering and Applied Physics
The City University
Northampton Square
London England EC1V 0HB

Telephone National 01-253 4399 Extension 3823
International +44 1 253 4399
Telex 263896 CITUNI G

ADVERTISING AND INSERTS IN THE IEEE REGION 8 NEWSLETTER

The Institute of Electrical and Electronics Engineers (IEEE) Region 8 NEWSLETTER provides an inexpensive medium for direct-mailing inserts and for placing advertisements about your conferences, courses, exhibitions, books and publications.

You can reach a select mailing list of 16,000 English-speaking electronics, computer, and electrical engineers in 78 countries at a rate of US \$0.11 each for a full-page advertisement or insert - much less than the cost of a direct-mail shot.

ADVERTISING RATES

Display - \$1,740 per full page, \$940 per half page, \$500 per quarter page, \$300 per one-eighth page. SIZE: 1/1 page 270mm x 190mm; 1/2 270 x 92 or 135 x 190; 1/4 135 x 92; 1/8 65 x 92. These rates are for 'camera ready' copy - a charge at cost will be made for any setting required.

INSERT RATES

For full Regional distribution to 16,000 members in 78 countries in Europe, Middle East and Africa, size A5 or folded to A5 (148mm x 210mm), weight 10gms \$1,740, 20gms \$2,030, 30gms \$2,330. Lower rates for distribution to one country only or to a group of countries. Additional charge if collation or folding required. Recommended method of delivery is by direct air mail parcel post or by air freight addressed to County Secretarial Services with prior notification of airway bill number, flight number and date. Surface transport is liable to considerable delay at port of entry. Before shipment of inserts check that the deadline date will be met including allowance for customs clearance and delivery to Guildford.

N.B. Membership figures are subject to fluctuation. Please check with County Secretarial Services on the number of inserts required.

All the above rates are net and include no allowance for discount. Cheques payable to County Secretarial Services.

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

Telephone National Guildford 577777 (STD Code 0483)
International +44 483 577777

Telex 264045 ERALHD G
Registered telegraphic address COSEC GUILDFORD
Deliveries 8 The Flower Walk, Guildford, Surrey GU2 5HH

	PUBLISHED QUARTERLY	FEB	MAY	AUG	NOV
DEADLINES	News to Editor	Jan 1	April 1	July 1	Oct 1
	Advertisements to County Secretarial Services	Jan 15	April 15	July 15	Oct 15
	Delivery inserts to County Secretarial Services	Jan 22	April 22	July 22	Oct 22