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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

INCORPORATED

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No. 75

AUGUST 1986

Message from your Regional Director

Basil W. Osborne

In a previous message I had asked you all to do your best to recruit another IEEE member. It is very gratifying to be able to advise you that Region 8 has now achieved the highest membership growth (as a percentage of membership) of any of the ten regions. Furthermore we are now very close to overtaking Region 10 in terms of the total membership. Keep it up!

We are trying to ensure that ample supplies of membership information and application leaflets are available to you; and if you are short, the membership development representative for your Section, or your Section Chairman or Student Counsellor, should have stocks in hand.

M.D. representatives from some of the Sections in the Northern part of the region came together for a weekend meeting at Hamburg on June 21/22. This is to be followed by a similar meeting for other Sections.

Those members who are active in arranging Chapter or Section meetings, or who represent Section or Region on conference committees, should ensure that the folding cardboard "information centres", stocked with leaflets, are displayed whenever possible. These give a good display of IEEE material, without the need for anyone to be there continuously.

It is good to see the growth of Chapter activity in the Sections. The Chapter meetings provide the most frequent contacts with members. As many as six new Chapters of IEEE Societies are being formed this year within Sections in Region 8. I hope to meet several of the Region 8 Chapter Chairmen of the MTT Society at the European Microwave Conference to be held at Dublin in September.

Finally, a word on "transnationalism". As your representative on the Board of Directors (the top IEEE Board), I can assure you that there is very real intent, and considerable effort made, by colleagues both inside and outside the USA, to serve IEEE members in all countries. Consequently I strongly disagree with the personal view* quoted in the editorial on the front page of the Region 8 Newsletter for May '86 that "... the US governing bodies do not think of the IEEE as a transnational organisation ..." My experience is the opposite.

Reference to the United States Activities Board (in the same editorial) does not seem to me to be relevant. The USAB (which does a fine job to improve the status and prestige of engineers in the USA) is the only part of the IEEE which can only be concerned with USA interests; and its funding comes entirely from the extra contributions made by members in the USA. (*editorial view. Ed)

News from the Sections

North Italy

By Dr. Stafano Massucco – Editor Newsletter for North Italy

A one day meeting on Telematics was held on 20th March in the Conference room of Genoa University; it was sponsored by the North Italy Section.

Reports from DIST (Dipartimento di Informatica, Sistematica e Telematica) of Genoa University and from Marconi Italiana Spa, stressed the importance of Telematics on the Genoa District economy, with particular reference to industrial activities and the harbour. Further work is expected in the coming months.

Six Student Members of the Section have been awarded a prize for their research activity in 1985 and new student prizes have been announced for the current year, 1986; first submissions are expected by the end of March. Detailed information concerning these prizes is available at each local Student Branch of the North Italy Section.

Section Officers for 1986-7 are:

Chairman: Professor Fabio Saccomanno, DIE Dipartimento di Energia Elettrica, University of Genova, via all'Opera Pia 15/a, 16145 Genova – Italy.

Vice-chairman: Professor A. Alberigi Quaranta, FINSIEL Spa, via Isonzo 21 b, ROMA – Italy.

Secretary-Treasurer: Professor Carlo Braccini, DIST Dipartimento di Informatica e Telematica, University of Genova, via all'Opera Pia 11/a, 16145 Genova.

France

By Professor Michel H. Carpentier

Following EUROCON 86 in April, the next significant event in the France Section was the General Meeting of the Section and the associated dinner, which took place on 25th June in "La Maison des Centraux", with a presentation by Thierry Breton (Author of Softwar, one of the recent best-sellers) on "un nouveau metier: Ingenieur".

The Section will organise in September next (1st-5th) a "Short Course on Vector Inverse Methods in Radar – Target – Clutter – Imaging", with the assistance of Professor W. M. Boerner and Dr. F. Molinet. (Lectures will be given in English; information may be obtained from Societe Mothesim – La Boursidiere – RN 186 – F 92357 – Le Plessis-Robinson – Telephone 33 (1) 46 32 65 30).

The 7th International Conference on the Analysis and Optimisation of Systems was held in Antibes Juan-les-Pins. The international Conference on Information Processing and the Management of Uncertainty in Knowledge-based Systems was held in Paris.

Preparations are being made for ECCTD 87 (European Conference on Circuit Theory and Design), an important event in signal processing. One of the two presidents is P. Amstsutz from CNET; chairman of the Technical Programme Committee is Professor J. Neyrinck (past chairman of the Swiss Section). Information may be obtained from Jeanine Henaff – CNET – DIT – 38/40 rue du General Leclerc – F 92131 – Issy-Les-Moulineaux – France.

IEEE ELECTIONS 1986

Executive Vice-President

Merrill W. Buckley

MERRILL W. BUCKLEY, JR.

If has been my good fortune as a member of the Regional Activities Board and as Vice-President of Regional Activities to have worked with many of the dedicated volunteers in Region 8. You should be proud of this leadership. Through their diligent this leadership. Through their diligent efforts, Region 8 has created an enviable record of membership growth, successful conferences, expanding section activities, innovative student projects and mutually supportive relations with national societies. The potential for additional growth and service is one of the most promising within

IEEE. If elected Executive Vice-President you can be sure that I will do all I can to further your programmes and interests. You can count on my intensive involvement in the following:

more efficient and rapid distribution of publications - particularly in remote areas

close monitoring of IEEE policies and procedures to ensure that they are sensitive to regional, national and local interests and traditions

creating closer ties between IEEE technical societies and Region 8 Sections when planning conferences and requesting papers greater involvement of Region 8 members in IEEE boards, committees

and societies

a dues structure that does not burden members in less fortunate countries

The IEEE as a transnational society has the opportunity and challenge of bringing together many of the electrical/electronic engineers throughout the world for mutual technical and professional development. We have made a good start with many accomplishments to our credit.

The biggest challenge is, however, still ahead. It will not be easy but I feel

certain Region 8 will play an increasingly important role.

WALLACE S. READ

The election by member ballot of IEEE officers is essential to the wellbeing of our organisation. Unfortunately, only a small proportion of our members participate in the process, and undoubtedly there are a variety of reasons for this. I am sure one of them relates to the difficulty of relating to the candidates on the ballot paper because they are unknown to you.

I am delighted, therefore, that your Editor has invited me to write a few words about myself and my interest in serving you as your Executive Vice-President in 1987.



Wallace S. Read

After graduation as an electrical engineer, I chose as my career the electric power utility industry in my home province of Newfoundland in Canada. My 35 years in that industry included terms as President of three companies. In 1985 I was appointed President of the Canadian Electrical Association, whose role it is to speak nationally for all Canadian electrical

My 35 years as an IEEE member and officer at various levels in the Institute have sensitised me to many of the issues which face our members in the regions external to the United States.

I believe this office provides yet another opportunity to have your viewpoint represented at the decision-making level of our Institute.

We are strong internationally and can continue to remain so providing we maintain the right balance between centralised services for economy and decentralised control for freedom of action.

President-Elect



Russell C. Drew

RUSSELL C. DREW

Region 8 has demonstrated its vitality by having the largest percentage membership growth so far this year, and it is my objective to build a stronger base for such growth by giving special attention to the transnational aspects of the Institute. Our profession as a whole benefits from the global linkages that are made possible through the IEEE, but there are many areas in which significant improvement can be made. This is because the transnational aspects have been grafted onto an essentially US society, and not fully integrated into the Institute.

It would be my plan as President-elect to address these concerns, first by convening a special review of all aspects of IEEE's transnational operations, giving special attention to:

publications access, including the timeliness of delivery and the encouragement of greater international contributions;

fees and financial operations, including methods of payment, acceptable currencies, facilitated transfer of funds, "fairness" of the schedule of payments balanced with benefits received;

broader transnational participation in governing the Institute, including better use of electronic links among regions and Institute leaders particularly at the working committee level;

quality speakers, as guest lecturers, with more international tours of internationally recognised experts;

better availability of educational materials, in formats that are more usable in non-US settings.

Having lived in London and had active business in a number of Region 8 countries, I am pleased to have this special opportunity to address members in the region specifically. Remember, your vote is important! Use it!

IRWIN FEERST

New, aggressive leadership within IEEE is needed to help working engineers combat the ongoing high-tech depression. Some

The profession of a working engineer ≠ the profession of a college professor.

The profession of a working engineer \neq

the profession of a corporate executive. Service to the working engineer service to IEEE.

There is no shortage of engineers

Contrary to the view expressed by the academic-dominated National Science

Foundation, the American engineer is NOT overpaid. 6 Papers appearing in IEEE's journals should be useful to the working

engineer. Many of IEEE's internal operations are wasteful. There is no need for

three offices in the New York City area. The secrecy of IEEE's actions can be overcome by opening meetings of

its Board of Directors to the trade press.

Given the fact that is has the largest circulation of any trade publication, *Spectrum*'s annual deficit of \$1.5 million is intolerable, its prizes notwithstanding.

IEEE's stonewalling of dissidents has robbed it of important inputs.

11 High school and college students need a more accurate portrayal of an engineering career.

A quality filter should be placed on the output of engineering schools. Professional ethics will flourish when IEEE supports *members* and not their employers.

I appear on the ballot in response to the wishes of the working engineer and not those of IEEE's Board of Directors.

MERLIN G. SMITH

I'm pleased to address Region 8 members. The strength of the Institute lies in its ability to motivate large numbers of members through its many society and local entities. I would work to further strengthen these entities, and their service to Region 8. I would also seek to orchestrate our diverse resources in broad problems facing the industry and the profession.

Generation and Communication of Technical Information The Institute's publications, and its many society and regional forums have provided IEEE the pre-eminence it enjoys. We must continue to develop these services, and without compromising those we now serve, provide broader coverage, from concept through development, production and maintenance. We propose new interdisciplinary forums, greater use of magazines and newsletters, and stronger collaboration among society and regional entities in the development and delivery of materials, worldwide. Education/Career Maintenance

There are universal concerns about changing technology needs, competitiveness and innovation. Solutions will require collaboration within and across all segments of the industry-business, academia and government. IEEE must continue to develop materials, but more, serve as an honest broker to promote collaboration within the industry. I propose Institutewide, industry-wide, and worldwide Continuing Education Initiative. This would include special forums for the promotion, development and delivery of materials, the sharing of materials within the industry, and special recognitions for those efforts.

We seek your support in these objectives.



Merlin Smith



* * ADVANCE NOTICE - EUROPE SEMINAR SCHEDULE * *

The CONTINUING ENGINEERING EDUCATION PROGRAM of the GEORGE WASHINGTON UNIVERSITY has been presenting engineering/technical seminars in Europe since 1977. The explosive growth of technology today has made programs such as this invaluable for practicing engineers who wish to remain current in their fields of expertise or who wish to learn about emerging technologies.

Seminars in the areas of Computers, Communications, Electronics, and Reliability/Quality Assurance Engineering are scheduled for presentation in the Autumn of 1986.† Topics include

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- * Fiber Optics
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- * Digital Telephony

- * Satellite Communications Systems
- * Electronic Reliability Screening
- * Global Positioning System Principles and Practice
- * ELINT: Analyzing Radar Signals
- * Design and Application of Industrial Security and Fire Protection Systems

If you would like more detailed information, please contact our London Offices:

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18 ST. GEORGE'S STREET, HANOVER SQUARE, MAYFAIR
LONDON W1R 9DE ENGLAND

† All presentations are in English.

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THE GEORGE WASHINGTON UNIVERSITY

SCHOOL OF ENGINEERING AND APPLIED SCIENCE
WASHINGTON, D.C. USA

TECHNICAL EDUCATION IS AN INVESTMENT IN THE FUTURE

IEEE CONFERENCES IN THE REGION

BRIGHTON - ENGLAND

International Broadcasting Convention 19–23 September 1986

By Mr. Basil W. Osborne

As broadcasting and its allied technologies advance, so does the scope and range of the IBC technical programme. Following traditional aims, the IBC 86 Technical Programme will cover the latest developments in sound and television broadcasting and allied technologies and will be concerned with forward technical possibilities and their implementation. The continuing developments in satellite broadcasting, cable television, higher definition television and new services will again be highlighted. The IBC Technical Programme Committee drawn from leading experts in broadcasting and allied services and the equipment manufacturing industry sets a high technical and professional standard in the selection of papers for presentation and discussion in the technical sessions.

The IBC Exhibition complementing the Technical Programme is an important world market place for the latest equipment of which there will be an extensive range on display and demonstration at IBC 86 by leading world manufacturers as well as a number

of smaller specialist companies.

While being primarily concerned with technology, the IBC is not the sole province of the engineer and the technician. Its participants include programme directors, production staff and financial administrators who are able to have joint discussions with equipment designers and manufacturers on new technical developments and their realistic relation to requirements and costs.

Programme and registration forms from The IBC Secretariat, Institution of Electrical Engineers, Savoy Place, London, United

Kingdom, WC2R 0BL. Telephone 01-240-1871

BERLIN – FEDERAL REPUBLIC OF GERMANY

Microelectronics for Information Technology Switching, Processing and Transmission 29–30 September 1986

By Dr.-Ing. F. Coers

The conference is organised by the Nachrichtentechnische Gesellschaft im VDE (NTG), German Section of the IEEE and others. The Programme and further information may be obtained from The Secretariat, German Section of the IEEE, Stresemannallee 15, D-6000 Frankfurt 70, FRG. Telephone (+69) 6308-221.

NICE - FRANCE

Antennae 4–6 November 1986

By Professor Michel H. Carpentier

This is the 4th International Conference. Further information may be obtained from Mrs. Cerboni, CNET, Centre de La Turbie, F 06320, Cap D'Ail. Telephone 33 93 41 17 17.

FRANCE

European Conference on Circuit Theory and Design 1987

Preparations for this Conference are at an advanced stage. One of the two presidents is P. Amstutz from CNET and the Chairman of the Technical Programme Committee is Prof. J. Neyrinck (Past Chairman of the Swiss Section). Information from Jeanine Henaff, CNET, DIT, 38/40 rue du General Leclerc – F92131, Issyles-Moulineaus, France.

ROME - ITALY

Mediterranean Electrotechnical Conference 24–26 March 1987

By Mr. Basil W. Osborne

The IEEE Region 8, IEEE Middle and South Italy Section and RIENA are holding a joint conference in Rome: MELECON '87 and the 34th Congress on Electronics. The Conference is to be held at the Palazzo dei Congressi.

The Theme of the Conference is "Developments in Telecom-

munication and Energy Systems".

The major topic areas, each to begin with an overview presentation by an invited lecturer, are Communication Systems; Communication and Computer Networks; Technologies for Communication; and Energy Systems and Networks.

For programme information and registration forms write to the Conference Secretariat, c/o RIENA, Via Crescenzio 9, 00193

Rome, Italy.

VOTES ELECT PRESIDENTS

CompEuro '87

By Robert C. Winton

- Seventy firm offers of papers and 150 paper titles have been received. This compares with the target of selecting 120 contributed papers for presentation at the Conference.
- These submissions came from authors in 26 countries, including Western Europe, Brazil, China, Czechoslovakia, Iran, Israel, Japan, Nigeria and Romania.
- Forty keynote speakers are being invited to make presentations which are intended to ensure that each session covers the technical area represented by its theme as completely as possible.
- A Technical Symposium on Designing Systems with VLSI Components Today will present designers and users of systems incorporating VLSI components with the latest market developments. Throughout CompEuro '87 commercial and non-commercial organisations will present currently available design systems, tools and services, will discuss their advantages and limitations, and will welcome hearing users' experiences.
- Five selected papers submitted by students will be presented in regular sessions.
- The Exhibition area will provide sufficient space for 50 stands, and some of these have already been reserved. The Exhibition area is situated so that it will form the central meeting point of the Conference.
- A news-sheet will be mailed to all those who have sent their names and addresses, to keep them up-to-date with the latest CompEuro '87 developments. The first issue has already been distributed; the next will be mailed in September.
- •The State of Hamburg is giving active support, including a reception in the historic Town Hall.
- Valuable assistance is being provided by Lufthansa, who have agreed to act as official Carriers to the Conference.

Further information:

THE EXHIBITION
Professor A. Heetman, Eindhoven University,
Den Dolech 2, P.O. 513, 5600 MB Eindhoven
The Netherlands

THE TECHNICAL SYMPOSIUM Dr. E. Rothauser, IBM Research, Saumerstrasse 4, Rueschlikon-ZH, Switzerland.

OTHER INFORMATION
Professor W. E. Proebster, IBM Laboratory,
P.O. Box 80 08 80,
D-7000 Stuttgart,
Federal Republic of Germany.

Continuing Education

The Continuing Education Institute – Europe, has available for the 1986–7 season an extensive series of lectures in Advanced Science and Technology. There are some 25 courses grouped under five principal headings: Materials and Coatings, Computers and Information Systems, Semiconductor Materials and Devices, Circuit Design and Signal Processing, and Biomedical Engineering. The courses are held in several European Centres and the lecturers are drawn from a panel of international experts.

Detailed information may be obtained from: CEI-Europe, Rörstorpsvägen 5, S-61200 Finspång, Sweden. Telephone +46 122

175 70.

PRESIDENTS ARE ELECTED BY VOTES

NEW SYSTEMS AND SERVICES IN TELECOMMUNICATION

Cables, networks, satellites...

The WHAT, the HOW and the WHY?

The Association of the Electrical Engineers graduated from the Montefiore Institute is organizing, in collaboration with

- the Radio Television Belge de la Communauté Française (R.T.B.F.)
- the Régie Belge des Télégraphes et des Téléphones (R.T.T.)
- the Technical Centre of the European Broadcasting Union (E.B.U.)
- the University of Liège

the Third International Conference on New Systems and Services in Telecommunication which will be held in the Congress Palace of Liège from 12–14 November 1986.

The aim of the conference is to undertake a global analysis of the continuous evolution of systems and services in the telecommunication field. Attention will be focused on the point of view of the engineer who finds himself obliged to strike a balance between the developing technological potential and fluctuating market conditions.

63 papers will be presented during the 3 days of parallel sessions.

The Programme and other useful information is available from:

Mrs. Ch. LACROSSE, A.I.M., 31, rue Saint Gilles, B-4000 Liège Belgium. Tel. . ./32/41/22.29.46

Benjamin Franklin

(1706-1790)

Born of English parents in Boston, Massachusetts, Benjamin Franklin was the youngest of 17 children, but such were the family finances that he had only two years at school. For three years he practised his father's trade of soap and candle making; the work was unrewarding and he was later apprenticed to the printing shop of an elder brother. As a printer he was a considerable success; after studying the trade for two years in England he returned to America where in Philadelphia he bought a dull local newspaper, which he not only printed but also wrote the greater part of its text. The paper prospered and he published an "almanac" which was full of wit and wisdom; it made him a fortune.

Franklin had a great many interests: he started a subscription library, a debating society, a fire service, a street-cleaning department, and a college which later became the University of Pennsylvania. He invented a heating stove and found time to teach himself several foreign languages and to play a number of musical instruments. He was much interested in science and proved by flying a kite in a thunderstorm that lightning is a discharge of electricity; later he invented the lightning conductor. In 1750 he became postmaster general of the British Colonies in North America and took a leading part in defending the northwest frontier against the French and the Indians. He helped to draw up the American Declaration of Independence and was one of those who signed it. In 1787 he was a member of the Constitutional convention which met to work out the method of government which should be adopted by the United States.

He was an ardent experimenter with a lifelong interest in science. His one-fluid theory of electricity influenced European scientific thought of the period; such was his reputation that he was known as the "Newton of Electricity". Perhaps one of his major difficulties was that his many public duties forced him to move frequently from place to place and his work as a result lacked that continuity which is so essential a part of a scientific career. Franklin House is the only one of his many residences and laboratories which now remains.

G. H. Byford.

IEEE REGION 8 NEWSLETTER

Mailed to all members in Europe, Africa and the Middle East, reaching over 17,000 English-speaking electronics, computer, and electrical engineers in 78 countries.

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 \times 190mm; 1/2 270 \times 92 or 135 \times 190; 1/4 135 \times 92; 1/8 65 \times 92. These rates are for 'camera ready' copy - a charge at cost will be made for any setting required.

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For full Regional distribution to 17,000 members in 78 countries in Europe, Middle East and Africa, size A5 or folded to A5 (148mm x 210mm), weight 10gms \$1,740, 20gms \$2,280, 30gms \$2,830. Lower rates for distribution to one country only or to a group of countries. Additional charge if collation or folding required.

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IEEE Historic Milestone

Benjamin Franklin House 38 Craven Street, London, England

Dear Member of the IEEE,

Your help is urgently needed to save the only Home of Benjamin Franklin left standing in the world. The IEEE is declaring the Franklin House a MILESTONE in the history of Electrical Science.

£150,000 is urgently needed to begin the restoration of the House. To fulfil the purchase agreement restoration must be begun by the end of 1986 or the house will be LOST.

HOW YOU CAN HELP SAVE THIS MILESTONE.

If every IEEE Member gives £10.00 the house will be saved. Franklin's Restored Electrical Laboratory will be the IEEE Memorial. The names of the members of the IEEE who contribute to saving Franklin House will be recorded in the Franklin Library. Those who give will become Friends of Benjamin Franklin House. They will have free Admission to the House and will be invited to special events.

Please answer our Urgent call for immediate help.

SAVE FRANKLIN HOUSE, AN IEEE MILESTONE.

Please send your Donation or deed of Covenant to: The Countess of Bessborough,

THE FRIENDS OF BENJAMIN FRANKLIN HOUSE,

4 Westminster Gardens, Marsham Street, London SW1, England.

Thank you,

Mary Bessborough, (Countess of Bessborough, Honorary Chairman)

From: Basil W. Osborne.

Computer Society

Area 8 Activities Report

By Roland Saam

Strengths

Huge potential market, very high quality and diverse technical activities.

Weaknesses

Volunteer strength and co-ordination does not happen. Lack of communication.

Opportunities

New Chapters, new student chapters, liaison with and co-operation with many national societies.

Goals 1986

- 1. Identify Chapter organisation in each country.
- Establish communication procedure chapter chairmen/ European office.
- 3. Create multiple chapters. Generate Activities.
- Identify an Area 8 committee: Objects Newsletter Development.
- 5. Establish budget/activity reporting procedure.
- 6. Co-ordinate European Office as hub for area activity information.
- Increase awareness of voluntary aspect of CS, with personal rewards.

Projects

- 1. Start Newsletter for membership and for volunteers stimulate local activity. Start interchange between chapter/society.
- Meet all/most area chairmen or active volunteers in every country.
- Organise local mailing list/database of volunteers in every country.
- 4. Establish a technical meetings report (adjunct to existing IEEE procedure), help control and deployment of resources.
- 5. Plan Area 8 Workshops 1987.
- 6. Plan Area 8 Distinguished Visitors (Model after Area 10).
- 7. One Tutorial.