

# IEEE

## Region 8 News

No 92 - November 1990

Europe, Middle East and Africa



16 Nov. 1990

Handwritten initials and a checkmark, possibly "JS" and "CA".

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## Adieu from the Region 8 Director

*Professor Sven-Olof Öhrvik*

This is my last report to you as Regional Director; at the end of December Kurt Richter takes over. It has been two very interesting and rewarding years, but unfortunately I have had too little time to visit some parts of the Region. A large slice of the time I have had available for the IEEE has been spent on general IEEE matters, such as the Strategic Planning Committee and The Volunteer Structure Committee.

There have been clear indications during the last two years that the IEEE is moving towards a more international organisation, as is shown by the membership survey, and there have too been many discussions and some concrete proposals from top-level committees such as the Board of Directors, Regional Activities Board, Transnational Committee and the Strategic Planning Committee. The Transnational Committee has been extremely busy this year since Fernando Aldana of Spain became its new Chairman. An important motivation for the increased international interest is more rapid growth of membership in Regions outside North America.

### Volunteer Structure

The ad-hoc Committee on restructuring the basis of the Institute's volunteer system, delivered its final report to the Board of Directors in August; the committee was then dissolved. The main difference between this and the 1989 report is that the concept of geographical entities has been eliminated. The report proposes that a well defined, semi-autonomous organisation should be formed for IEEE members within the US; they are close to 80% of the total membership. This body would function as a National Society for electrical engineers, concentrating on professional matters and topics of specific interest to US members. The Committee considered that there exists an obvious demand for such an organisation (AIEEE) and that it is preferable to form it within the general framework of IEEE instead of leaving the initiative to other interests outside the IEEE.

Assuming that such a National Organisation is formed, what is the best place for the Educational and Standards activities? The report stresses that both are important international issues and therefore in principle should be part of the international IEEE organisation. However there are also important standards and educational activities in the US. The only really controversial issue is the place of activities related to the Accreditation Board for Engineering and



Technology, i.e. the IEEE participation in the accreditation of US technical universities for Electrical Engineers, which is at present a major activity of the Educational Activities Board. The report proposes that the latter Board could concentrate better on the important universal and international matters, if accreditation related activities were transferred to the AIEEE. That view is strongly opposed by the Educational Board.

The report stresses that changes in the volunteer organisation could have great importance for the future of the Institute and that it is vital that all parts of the IEEE should assess the proposal; a thorough debate should take place before final implementation - the first step is to give the report wide publicity. According to the report's recommendations the formation of AIEEE will be discussed at

the November Directors' meeting, the aim being to implement any decision early in 1992. The details would be developed during 1991.

### The Brussels Office

The Computer Society has had a successful office in Brussels for several years. It is now self-supporting through sales of Conference Proceedings and Books. In August it was decided by the Technical Activities Board, and approved by the Directors, that the activities of the Office will be doubled by the T.A. Board taking a half share. The Office will still be managed by the Society but half its activities will be for other Societies. Discussions are taking place to extend the Computer Society office in Region 10.

It is the aim of the Brussels office to improve member services. Apart from sales of technical literature, the most important function of the office is to answer membership enquiries and try to follow-up complaints. It is also considered to be of value to have a local representation for general publicity reasons, thereby demonstrating that the IEEE is an international organisation.

The extension of the Brussels Office will be completed by the end of 1990. Considering this development, which is evidently of great value for many members of Region 8 who are also members of Societies, it might be appropriate that Region 8 too joins the Brussels office, making it a real IEEE office. It would also be in the interests of the Regional Activities Board to support an increased service to members outside North America. At the Regional Committee meeting in October it was agreed in principle that subject to an acceptable agreement between the Region and the other interested parties, the Region would share the Brussels office and that after two years the arrangement would be reviewed.

### Technical Activities Board

As a part of the Institute's increased attention to international matters, some important IEEE meetings are moving out of



North America. In 1991 the Board of Directors met for the first time outside North America - in Brussels; the Technical Activities Board now wishes to continue this international movement and will hold its autumn meeting in Southern Europe in 1991.

For several years The Technical Activities Board has held annual Colloquy in Regions 8 to 10; two years ago in Madrid they met Chapter representatives and last year a group from the Board visited Region 10; in September there was a tour of South America. The plan is that before and after the main meeting of the Board in 1991, small Board groups will visit several countries in Western and Eastern Europe. This will be an excellent opportunity for Sections and Chapters to

arrange meetings with distinguished speakers from the Board and in general establish closer contact with the technical side of the IEEE.

## New Sections

In August the Regional Activities Board and the Directors approved the establishment of new Sections in Romania and Moscow. In both cases a major difficulty with respect to membership fees has been the non-convertible currency. In Romania UNESCO/CEPES has given economic support to pay for 40 members. In the USSR the Popov Society has been active.

## Electronic Mail

For several years a small group of senior IEEE staff and volunteers has been interconnected through "Compmail", which is an

effective but expensive electronic mail system. A major break-through has been made this year through connection to INTERNET. This has been possible because the Institute has been recognised as an educational entity entitled to use the Internet free of charge on the same terms as universities. The reduced cost makes it possible to include all IEEE members in the scheme, with Internet access to different IEEE networks. Several experimental evaluation programmes are being undertaken this year.

*I wish to thank all those who, during my two years of office have worked so hard in the interests of the Institute and the Region, and to wish my successor Professor Kurt Richter an equally pleasant and rewarding period as Director of Region 8.*

## France

*By Dr. Francoise Valee*

### Conferences

In association with other Societies, the France Section of Region 8 is co-sponsoring the following conferences:

• JINA '90 - International Symposium on Antennas (Sophia-Antipolis, 13-15th November 90). Information: Secrétariat JINA'90, CNET-PAB, Centre de la Turbie, 06320 La Turbie, France. Tel: Mr. Guiraud (33) 93 41 15 30, Mrs. Certoni (33) 93 41 17 17. Fax: (33) 93 41 02 29. Telex: 470159F.

• MULTIMEDIA '90 - 3rd IEEE COMSOC International Multimedia Communications Workshop (Bordeaux, 15-17th November '90). Information: J.P.Coudreuse, Technical Programme Chairman, Multimedia '90, CNET LAA/ATM, route de Trégastel, 22300 Lannion, France. Tel: 96 05 31 89. Fax: 96 05 29 03.

• JICABLE '90 - 3rd International Conference on Polymer Insulated Power Cables (Paris, Versailles, 3rd-8th March 1991). Information: Secrétariat Général JICABLE '91, SEE, 48 rue de la Procession 75015, Paris, France. Tel: (33) 1 45 67 07 07. Fax: (33) 1 40 65 92 29. Telex: 200565F.

• SPS '91 - Power from Space: Second International Symposium (Paris 10-12th April '91). Information: M.Lucien Deschamps, EDF/DER,

1 av. Charles de Gaulle, 92141 Clamart cedex, France. Tel: (33) 1 47 65 32 00. Fax: (33) 1 47 65 39 11.

• CompEuro '93 - Computers in Design & Manufacturing (Montpellier, 11-14th May '93). Information: M.Alain Croisier, IBM France, 3-5 place Vendôme, 7500 Paris, France. Tel: (33) 1 40 15 53 04. Fax: (33) 1 42 60 99 75.

We have pleasure in announcing that the following conference is in preparation: Annual IEEE Robotics and Automation Conference in Europe (Acropolis, May 1992.)

### Other French News

Dans le cadre des accords passé entre l'A.R.E. et la Section française l'I.E.E.E. Nous annonçons les conférences suivantes:

- Magnétoscopes d'aujourd'hui et de demain (par M. Joseph Colineau - 6 novembre 1990)
- Les radars de surveillance du sol (par M. Nervé Tanter - 11 décembre 1990)
- L'aviionique d'aujourd'hui et de demain (par M. Claude Vuillemin - 22 janvier 1991)

Ces conférences auront lieu à 17h, FIEE 11 rue Hamelin, PARIS.

## Germany

### Microwave Theory & Techniques

*By Prof. Dr. -Ing. H.L.Hartnagel*

#### 1990/91 Workshops

03-05 October - Integrated Nonlinear Microwave and Millimeter-wave Circuits. University of Duisburg, Duisburg, Germany. Contact: Prof. Dr. -Ing. Wolff/Prof. Dr. Ing. A. Beyer, Universität Duisburg, Bismarkstr. 69, D-4100 Duisburg 1. Tel: +203 379-3213 or 3218. Fax: +203 379 3333.

Spring/Summer 1991 - Technology of Heterostructure Devices. Ulm.

Contact: Prof. Dr. -Ing. E. Kohn, Universität Ulm, Oberer Eselsberg, P.O.Box 4066,

D-7900 Ulm, Germany.

Spring 1991 - Microwave Measurement Techniques. Ratingen.

Contact: Prof. Dr. -Ing. R.H. Jansen, Bürohaus am See, Am Brüll 17, D-4030 Ratingen 1. Tel: +2102 83095. Fax: +2102 842391.

## Romania

*By Acad.Prof. Nihai Draganescu*

After a 15 year long effort by a handful of dedicated people, the Romania Section finally came into being on 15th August 1990 (For historical details see the August issue of the "Institute", page 8). As it stands now, it will be one of the most dynamic Sections in the Region. The interest in IEEE activities is

growing, with many outstanding scientists applying for membership. An expansion of student activities is also foreseen for the coming months and several professional conferences are scheduled for 1991.

At the end of this long road, we should like to express publicly our thanks for the constant support of Mr. Basil W. Osborne, Region 8 Secretary; and also for the competent assistance of Mr. Melvin I. Olken, Staff Director, Field Services, in speeding up the formalities of Section formation.

*Section Chairman: Acad.Prof.Nihai Draganescu, President of the Romanian Academy, Calea Victoriei 125, Bucharest, Romania. Telex: 11470 acad r.*



# U.K.R.I.

By Professor Anthony Davies

## Spread Spectrum Techniques

The first Region 8 International Symposium on Spread Spectrum Techniques and their Applications was held at King's College, University of London, in September 1990. Following a day of Tutorials attended by some 80 participants, the Symposium commenced with an invited address by Mr. Steve Robinson, OBE, FRS, Director of the Royal Signals & Radar Establishment. The meeting took place in the context of an increasing interest in the Non-military applications of spread-spectra - e.g. to multiple access satellites, mobile communication systems, local area networks and indoor wireless communications.

Participants were attracted from many countries and a second symposium is being planned for 1992, at a European venue yet to be decided. The possibility that in 1991 the Tutorials may be extended into a short course is under consideration.

## Circuits & Systems Chapter Coordination

A meeting of several CAS Chapter Chairmen and officers of the CAS Societies was held in New Orleans in May 1990, as a step towards improving links between the CAS Society and its Chapters in Region 8, and also between the Chapters themselves.

CAS Chapter Chairmen and the Chairmen of Sections where CAS chapters exist or could be formed, are invited to contact me, to ensure that I have up-to-date information on names, addresses, phone and fax numbers. I shall then be able to keep in touch with them and assist them to keep in touch with one another.

**Prof. A.C. Davies, Region 8 CAS Chapter Coordinator, London University, King's College, Strand, London, WC2R 2LS England. Fax: +44 71 836 4781**

## Sections' Congress 1990

This mammoth gathering of representatives from all the Regions and Sections of the IEEE can have left the participants in no doubt about the international character of the Institute; even Kuwait managed an heroic presence. There were rousing perorations from presidents and directors, and from emperors and bureaucrats. Democracy demanded a vote on this and that, and statistics were invoked to decide what everyone had decided.

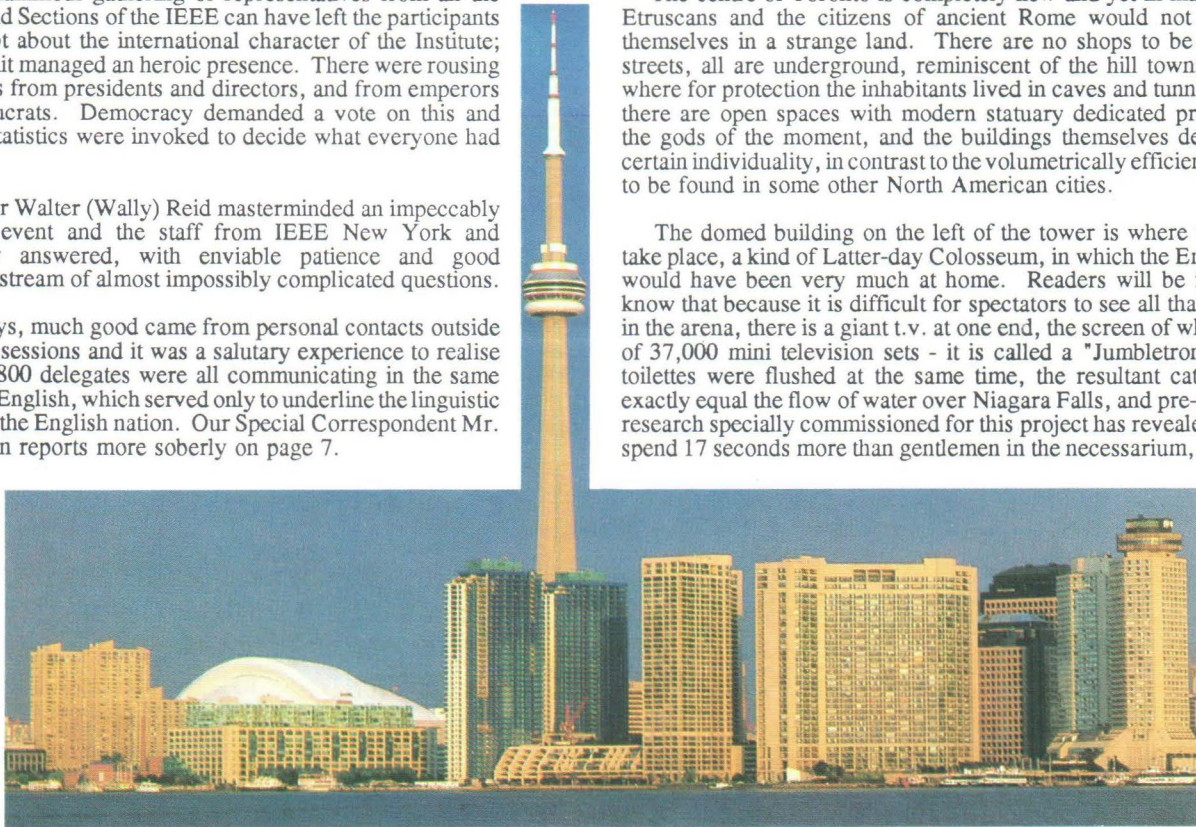
Professor Walter (Wally) Reid masterminded an impeccably organised event and the staff from IEEE New York and Piscataway answered, with enviable patience and good humour, a stream of almost impossibly complicated questions.

As always, much good came from personal contacts outside the formal sessions and it was a salutary experience to realise that some 800 delegates were all communicating in the same language - English, which served only to underline the linguistic laziness of the English nation. Our Special Correspondent Mr. Bob Winton reports more soberly on page 7.

## Downtown Toronto 1990

The centre of Toronto is completely new and yet in many ways the Etruscans and the citizens of ancient Rome would not have found themselves in a strange land. There are no shops to be seen on the streets, all are underground, reminiscent of the hill towns of Umbria where for protection the inhabitants lived in caves and tunnels. Outside there are open spaces with modern statuary dedicated presumably to the gods of the moment, and the buildings themselves demonstrate a certain individuality, in contrast to the volumetrically efficient uniformity to be found in some other North American cities.

The domed building on the left of the tower is where the "games" take place, a kind of Latter-day Colosseum, in which the Emperor Titus would have been very much at home. Readers will be interested to know that because it is difficult for spectators to see all that takes place in the arena, there is a giant t.v. at one end, the screen of which consists of 37,000 mini television sets - it is called a "Jumbletron". If all the toilettes were flushed at the same time, the resultant cataract would exactly equal the flow of water over Niagara Falls, and pre-construction research specially commissioned for this project has revealed that ladies spend 17 seconds more than gentlemen in the necessarium, John or loo.



## Greece

By Professor Basil C. Papadias

Much time was devoted this year to the planning of Chapter activities in the Section. The Power chapter already has a history of 12 years, and a membership exceeding seventy five - it comprises one Life Fellow, one Fellow and several Senior Members. During the year the Chapter has organised three technical meetings, with lectures addressed mainly to electrical engineers of the Public Power Corporation. It was also represented at the first meeting of the PE Chairmen of Region 8, last August in Paris. It is expected that the new activity of P.E. Chapters coordination in

Region 8, which began this year, will be profitable for all P.E. Chapters. Coordination of educational programmes is the first aim.

The Communications Chapter is new and was established earlier this year. Its interim chairman, Assistant Professor Ph. Constantinou has produced an interesting programme of activities for the winter period, in cooperation with the Public Telephone Company. The petition to establish an MTT Chapter is also nearing completion.

Educational Activities this year consisted of five Technical Meetings. There were some student activities in the University of Patras and the petition for a Student Branch has already been submitted; approval is expected soon. Membership was 790 at the beginning of the summer.

**Section Chairman: Professor Basil C. Papadias, National Technical University of Athens, 42 Pattission st., 106 82 Athens, Greece. Tel: +301 3600.551 Fax: +301 3637.312**



1990

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075 Metallization Systems for VLSI and  
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December 3-7, 1990. Davos, Switzerland.

066 High Performance  
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December 3-7, 1990. Davos, Switzerland.

061 Semiconductor Silicon

December 3-7, 1990. Davos, Switzerland.

063 The Basics of Plasma Processing

December 3-7, 1990. Davos, Switzerland.

067 Sputtering for Microelectronics

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## Some Impressions of the Sections' Congress. Toronto, October 1990

By Bob Winton (UKRI Section)

Articles in *"The Institute"* and elsewhere have for some time given me the strong impression that the IEEE has been growing steadily more transnational in its policies and outlook. SC90 reinforced this view. We have moved forward from the first meeting of the Region 8 Committee in 1963, when we were asked whether Oxford or Cambridge universities could be regarded as "schools of recognised standing"; then, some ten years ago, members almost elected a President with the openly stated policy of making the Institute a US-only organisation, and the Region 8 Committee even went as far as to discuss what to do if this happened. It did not - transnationalism again moved forward, and at SC90 the frequent references to the differences in environment and culture between IEEE operations in the US and in other countries, indicated that transnationalism has come to stay. In a talk about the future, President-elect Eric Sumner said that the IEEE could survive only as a global organisation, and look forward to membership outside the US exceeding membership within.

But I do wonder whether just how transnational the IEEE can become while it is being administered by an almost entirely American staff and governed through committees on which Americans predominate. Voted sixth in importance out of twenty six issues was a recommendation to increase participation in IEEE leadership by members from outside the US; this is encouraging.

SC '90 made it clear that the IEEE use of electronic communication and Section membership databases have made great progress during the last three years. As fax and e-mail become more common, increasingly around the world all members will be able to communicate with Headquarters with equal speed; this will do much to produce the feeling of a global IEEE and end the sense of isolation which I and many others sometimes experience.

Also most encouraging is that an organisation of over 320,000, finds members' views of such importance that every three years it devotes so much time and money to getting

together representatives from all over the world. Perhaps even more important are the many people, from the Board of Directors downward, engaged in looking into the mists of the future to establish not only the goals towards which the IEEE should move, but also to suggest how we reach them. I found an impressive sense of the need for continual change, and of assessment of the best direction in which to go.

On the whole, members are satisfied with the way the IEEE is run. No Congress recommendation indicated deep discontent with IEEE basic operations; they were mostly concerned with ways of doing better, that which is already being done or is being considered. I was left with the comfortable feeling that in a fast changing world and amid fast changing technologies, our IEEE is well set to remain the world's leading engineering society - provided that members remain vigilant in scrutinising the goals they have set themselves, and the course they are steering; and that they remain as aware in the future as they are now, of the need for change.

### melecon '91

The Sixth IEEE Mediterranean Electrotechnical Conference, MELECON '91, will be held at the crossroads between Western and Eastern Europe, in the Sloven Capital Ljubljana, on 22nd-24th May 1991. More than 300 original papers will be presented in several parallel sessions during the three days of the Conference, which will be held in the "Cankarjev Dom", the Congress Centre of Ljubljana.



*The Cankarjev Dom*

While MELECON '91 will be structured as a series of specialised parallel Conferences, it will also provide a forum for professional and social contacts between engineers from many different fields. Communications engineers will be able to learn about the latest developments in Pattern Recognition and Power engineers will be able to discuss their problems with experts in Computer Vision or Bio-engineering. These contacts will encourage the development of that interdisciplinary environment, which is so important to the scientific community.

A series of sessions on Telecommunications will cover the theoretical aspects of Communications, as well as Networks and

Systems, including Mobile Radio Communication and ISDN.

The Computer Techniques series of sessions will include Computer Vision, Pattern Recognition, Artificial Intelligence, Computer Architecture and Networks, as well as Distributed and Real-time Systems, CAD & CASE

The sessions on Power Electronics will cover Induction Motor Drivers, Power System Stability, Power Electronics, Power Load Flow, Industrial Power, Electrical Machines and Power Switches. Digital Signal Processing sessions will deal with Hardware, Algorithms, Speech, Image & Data. Sessions on Electron Devices and Circuits will cover the Theory, the Technology and the Applications. Additional sessions will deal with Adaptive Control, Microelectronics and Technological Education.

Following the opening session and special plenary sessions, eminent scientists will present invited lectures on recent technological developments. MELECON '91 will also feature the annual Student Paper Contest organised by Region 8; groups of students from several countries will participate.

Apart from the ample technical Programme, MELECON '91 participants and their spouses will enjoy the warm hospitality of Ljubljana - a modern city of 300,000 inhabitants, built on the remains of the old Roman Emona. Receptions and tours of the city, the castle and the beautiful Slovenian landscape - be in the Alps or the Adriatic sea - will provide all the attendees with an enjoyable complement to the technical contributions of MELECON '91.

If you have not yet applied for information on MELECON '91, please contact the Secretariat: Fakulteta za elektrotehniko in računalništvo, Ljubljana, Trzaska 25, Yugoslavia. Tel +38 61 265 161. Fax: 38 61 264 990.

### Kenya

By Eng. Charles S.R. Aloo

The New Kenya Section was launched on 28th October 1990 at a meeting held in Nairobi. The following were elected: Eng. Charles S.R. Aloo - Chairman; Dr. A.M. Chol

- Secretary: Eng. Henry V. Jahing - Treasurer: Dr. P.A. Okelo - Chairman Technical Activities.

The next meeting of the Committee will be held on 15th October at Milimain Hotel. All members are invited to attend; the technical

programme and Section Bylaws will be considered. Members who have not been receiving notices are urged to get in touch with the Chairman, PO Box 74938 or Telephone 28804/28683 Nairobi.



# Affiliates

By Mr. William C. Hunter

*This article is in response to the views expressed on page 1 of Region 8 News for August 1990. (Ed.)* The editorial on page 1 of the last issue of R8 News seems to indicate that IEEE staff have not communicated well to the membership in regard to the grade of Associate Member, the status of Society Affiliates, and the purpose of both in promoting IEEE and the IEEE Societies.

The Institute has a grade of membership called Associate, which is for technical and non-technical persons who have an interest in IEEE related fields, but not the educational background or professional experience required for the Member grade. Associate members have the same rights as other members, but they neither vote in IEEE elections nor hold elected or appointed volunteer offices, for which Member grade or higher is required. There are now over 23,000 Associate members in the Institute - 8% of all higher grade members.

*This discussion might be aided by reference to the IEEE Bylaws. An Associate is someone who "...does not meet the qualifications for "Member" grade but who would benefit through membership and participation in the IEEE...". A Society Affiliate is someone "...whose technological activities do not justify full membership but who may be helped by participation in Society activities and who may contribute benefits to Society members." It is noteworthy that the former helps only himself whilst the latter helps both himself and the Society to which he is affiliated. Is that what the Institute intended?*

*These definitions do not seem to exclude physicians and lawyers from becoming either Associate members or Affiliates, and since both are equally qualified, or have an equal lack of qualifications, it is difficult to understand why an applicant having a narrow interest in the affairs of only one IEEE Society, should choose the more expensive alternative of Associate, much as the IEEE might like him to do so. In the case of the specific example of the Computer Society, matters are not so simple. Computer "programmers" are drawn from many different disciplines, some having not even a remote connection with engineering, and a "computer science" degree might have only the most elementary engineering content. Once again why should these potential "members" opt for the more expensive grade of Associate just to satisfy their obvious but restricted needs?*

*One hopes that in fixing the contributions of Affiliates the Executive Committee takes into account not only Society costs, and the contribution to the Society from central funds, but also an element of general administration which would permit both the Section and the*

There are members who feel that the Institute is far too permissive in admitting this number of Associates, and others who feel that the Institute is too restrictive. That is a question upon which the members of Region 8 may wish to ponder, and express their opinion. Our Associates may attend IEEE conferences, purchase IEEE publications and services, join IEEE Societies and participate in technical and professional activities, all at the discounted member rates.

Society Affiliation is a very different matter, which often provokes lively discussion at IEEE gatherings. An Affiliate is a person who is qualified to be an Associate member but who belongs to another Association which caters for the needs of a different profession; he wishes to be associated with an IEEE Society from which he feels he can derive some technical benefit, or to which he may make some special contribution.

All Societies have affiliates, although some 95% of Affiliates are in the Computer Society; 25% of the Computer Society members are Affiliates. There is a feeling among some IEEE officers that IEEE Society volunteers may be recruiting applicants for

Affiliate among those qualified to hold Member grade. There are members who feel that this practice is a disservice to the applicants, the IEEE, and to the Society itself. The Membership Development Committee has consistently rejected all proposals to give Society Affiliates the full benefits of IEEE membership, or to create an IEEE "Affiliate member" grade. The Committee's first responsibility is to promote IEEE and Society membership, a task which it takes most seriously; at one of its recent meetings an "affiliate membership" proposal was received; the Committee refrained from "shooting the messenger" but rejected the idea that recruiting affiliates for the Societies should have priority over recruiting members to the IEEE and Societies.

While those who belong to National Societies may wish to affiliate with a single IEEE Society, I hope that we would always first invite them to take up full IEEE membership with its greater benefits for individuals and the Institute. Membership of the IEEE and its Societies should be the primary focus of the Institute; without a strong and viable Institute there would be fewer IEEE Societies and services in the future.

*Regional funds to benefit from Affiliates' contributions. It might then be said that Affiliates are contributing to the Institute's general well-being and so remove some of the tension generated by the present situation. Applications for Affiliate or Associate membership from fully qualified electrical engineers are presumably rejected immediately by the Institute's central administration.*

*Some Committee might consider what practical steps the Institute takes to fulfill its aim of "furthering the wellbeing of society, throughout the world" through the medium of electrotechnology. The IEEE permits interested members of the general public to take part in Society activities but it does not actively encourage the recruitment of such members, or provide facilities which might persuade them that there is something to be gained from their association with this internationally prestigious body. For some Societies, Affiliates are not just desirable, they are an absolute necessity.*

*Teachers of school (14-18 years) science, would understand a great deal of "Spectrum" and pass it, and an awareness of the Institute's existence, to their students, but there seems to be no appropriate grade of inexpensive membership; the stimulus will not come from the schools, it must come from the Institute. National Societies have extensive programmes of this kind, why not the IEEE? We appear to lack a mechanism for encouraging this and similar groups to become acquainted with the considerable contribution of the Institute, which therefore lives in isolation, lacking discussion about what society needs. National Societies have extensive programmes of this kind, why not the IEEE? (The Editor)*

## From page 13.

\* Frans Beenker, Philips Research Labs, The Netherlands (ETC '91 Tutorial Programme).

\* Ben Bennetts, Bennetts Associates, U.K. (Vice-chairman, Chairman ETC '91 Technical Programme Committee).

\* Bernard Courtois, IMAG-TIM-3, France

\* Colin Maunder, British Telecom Research Labs UK (Publicity)

\* Joachim Mucha, Universität Hanover, Germany (Chairman - ETC '91 Organising Committee).

\* Michel Parot, Thomson-CSF, France

\* Fred Pool, Philips, The Netherlands

\* Paolo Prinetto, Politecnico di Torino, Italy (Mailing List)

\* Birger Schneider, Elektronikcentralen, Denmark (Chairman)

## To Probe Further

If you would like to help in the organisation of ETC or the European DFT Workshop, please contact: Birger Schneider, Elektronikcentralen, Venlighedsvej 4, DK2970 Horsholm,

Denmark. Tel: +45 42 88 77 22 Fax: +45 42 86 58 98

To help with paper review for ETC '91 or ITC, please contact: Ben Bennetts, Bennetts Associates, Burrage Farm, Burrage, Southampton SO3 7BY, UK. Tel: +44 4895 81276. Fax: +44 4895 79519

Finally, to receive details of future conferences and workshops in Europe, please send your name and address to: Paolo Prinetto, Politecnico di Torino, Corso Duca degli Abruzzi 24, I-10129 Torino TO, Italy. Tel: +39 11 556 7007. Fax: +39 11 556 7099. Email: prinetto@polpp.to.cnr.it





## Region 8 Conference Record

### November 1990

- 8-9 **37th Congress on Electronics**  
Location: Rome, Italy  
Contact: International Electronics Space & Energy, Congress Secretariat, INTEX, via Crescenzo 9, 00193 Roma, Italy.

- 2-16 **NEURO-NIMES '90 - Les Reseaux Neuro-Nimetiques**  
Location: Nimes, France  
Contact: Jean-Claude Rault, EC2 - 269-287 rue de la Garenne, 92024 Nanterre, Cedex, France

- 13-15 **JINA '90. Int. Symposium on Antennas**  
Location: Nice, France  
Contact: Secretariat JINA '90, CNET-PAB Centre de la Turbie, 06320 La Turbie, France.

- 15-17 **MULTIMEDIA '90 - IEEE Com-Soc. Int. Com. Workshop.**  
Location: Bordeaux, France.  
Contact: J. Rivenc, Secretariat Multimedia '90, ADERA - BP 40, F-33166, St Medard-in-Jalles, Cedex France.

- 20-23 **COGNIVA '90**  
Location: Madrid, Spain  
Contact: IEEE Comp.Soc.Conf. Services, 1730 Massachusetts Av. N.W. Washington, DC 20036-1903, USA

- 26-29 **8th Int Conf. of the Israel Society for Quality Assurance**  
Location: Jerusalem, Israel.  
Contact: ISAS, POB 574, Jerusalem 91004, Israel.

### December 1990

- 03-07 **Toulouse '90 - Int. Workshop on Software Engineering**  
Location: Toulouse, France.  
Contact: Jean-Claude Rault, EC2, 269/287 rue de la Garenne 92024 Nanterre, Cedex Paris

- 17-19 **CNNA '90 - Int. Workshop on Cellular Neural Networks**  
Location: Budapest, Hungary  
Dr. T. Roska, MTA SzTAKI, Hungary Academy of Science, uri-u 49, Budapest H-1014, Hungary

### February 1991

- 20-22 **KIUS '91 - Communication in Distributed Systems**  
Location: Mannheim, F.R.G.  
Contact: Prof. Dr. Wolfgang Effelsberg, Univ. of Mannheim Seminargebaude A5, 68000 Mannheim. FRG.

- 25-28 **EDAC '91 - European Design & Automation Conf.**  
Location: Amsterdam, The Netherlands  
Contact: EDAC91 Secretariat, CEP Consultants Ltd., 26 Albany Street, Edinburgh EH1 3QH, Scotland

- 27-01 **4th Int. Workshop on HDTV & Beyond**  
Location: Turin, Italy  
Contact: Ir. Marcel Annegarn, Philips Research Laboratory, NL-5600, JA Eindhoven, The Netherlands

### March 1991

- 04-06 **Microelectronics**  
Location: Baden-Baden, FRG  
Contact: IEEE Germany Section, Stresemannallee 15, VDE-Haus, D-6000 Frankfurt, Federal Republic of Germany

- 10-13 **IEEE Int. Workshop on Microelectronics in Communications**  
Location: Interlaken, Switzerland  
Contact: Prof.DR. H. Meyer, Aachen University of Technology, 5100 Aachen, Federal Republic of Germany

- 12-14 **9th Int. Zurich Symposium & Technical Exhibition on E.M.C.**  
Location: Zurich, Switzerland  
Contact: Techn Programme Committee EMC'91, ETH Zentrum-IKT, CH-8092, Zurich, Switzerland.

- 17-20 **3rd IEE Conference on Telecommunications**  
Location: Edinburgh, United Kingdom  
Contact: IEE Conference Department

- 18-19 **3rd Int. Workshop on BaAs in Telecommunications**  
Location: Milano, Italy  
Contact: C.C.&F., s.r.l., PO Box 184, 27100 Pavia, ITALY

- 25-28 **Control '91 - International Conference**  
Location: Edinburgh, United Kingdom  
Contact: IEE Conference Department

### April 1991

- 08-12 **TAPSOFT '91 - Int. Conf. on the Theory & Practice of Software Development**  
Location: Brighton, United Kingdom  
Contact: TAPSOFT '91, PPL Conference Services, 2 Savoy Hill, London WC2R 0BL

- 10-12 **ETC '91 - European Test Conference**  
Location: Munich, F.R.G.  
Contact: Peter Stilke, VDE-Zentralstelle Tagungen und Seminare, Stresemannallee 15, D-6000 Frankfurt 70, F.R.G.

- 14-18 **7th Int. Conf. Antennas & Propagation**  
Location: York, United Kingdom  
Contact: IEEE Conference Dept.

- 22-24 **CCC '91 - 3rd Mideuropean Conf. on Custom\Application Integrated Circuits**  
Location: Sopron, Hungary  
Contact: MATE Secretariat, H-1372, Budapest Kossuth L. ter 6-8, Hungary

- 22-26 **CIRED 1991 - Int. Conf. on Electricity Distribution**  
Location: Liege, Belgium  
Contact: AIM Conf. Services, Rue St. Gilles 31, B-4000 Liege Belgium

- 22-26 **IDDLs '91 - Int. Symp. on Subscriber Loops & and Services**  
Location: Amsterdam, The Netherlands  
Contact: W. van der Bijl, p.a. ISSLS PO Box 3g, 2260 AA Leidschendam, The Netherlands.

- 23-25 **Commsphere '91 - International Symposium**  
Location: Herzliya, Israel  
Contact: Commsphere '91 c/o ORTRA PO Box 50432, Tel-Aviv 61500, Israel

### May 1991

- 13-17 **CompEuro '91 - IEEE Conf. on Advanced Computer Technology, Systems & Applications**  
Location: Bologna, Italy  
Contact: Prof. Vito Monaco, Dip. di Elettronica, via Risorgimento 2, 40136 Bologna, Italy

- 22-24 **MELECON '91 - Mediterranean Electrotechnical Conf.**  
Location: Ljubljana, YUgoslavia.  
Contact: Prof. B. Zajc, Fakulteta za Elektrotehniko, Trzaska 25, 61000 Ljubljana, Yugoslavia

- 22-25 **12th IFAC Symp.- Automatic Control in Aerospace Intelligent Autonomous Vehicles**  
Location: Southampton, U.K.  
Contact: IEE Conf. Dept.

### June 1991

- 03-07 **IGARSS '91 - IEEE Int. Symp. Geoscience & Remote Sensing**  
Location: Espo, Finland  
Contact: Prof. M.Hallikainen, Helsinki University of Technology, Lab or Space Tech., Otakaari 5A, Espo, Finland



18-21 **Real Time Computer Applications - IEEE Conf. Nuclear, Particle & Plasma Physics**  
Location: Aachen, F.R.G.  
Contact: L. Welch, Argonne National Lab., Physics Division, Argonne IL, 60439 USA.

20-22 **4th Int. Conf. on Television Measurements**  
Location: Montreux, Switzerland  
Contact: IEE Conference Dept

23-28 **1991 Int. Symposium on Information Theory**  
Location: Budapest, Hungary  
Contact: Dr. A. Ephremides, Dept of Electrical Eng., University of Maryland, College Park, MD 20742, USA

26-28 **3rd Int. Conf. Power System Monitoring & Control**  
Location: London, United Kingdom  
Contact: IEE Conference Dept.

### July 1991

01-03 **The Bicentennial Conference on Computing.**  
Location: London, U.K.  
Contact: IEE Conference Dept.

01-12 **ACAI-91 - 4th Advanced Course on Artificial Intelligence**  
Location: Bilbao, Spain  
Contact: Mikel Emaldi, LABEIN, IDEIA Dept., PO Box 1234, 48080 Bilbao, Spain.

03-06 **CAR '91 - 5th Int. Symp. on Computer Assisted Radiology**  
Location: Berlin, F.R.G.  
Contact: Prof. H.U.Lemke, Rudolf Virchow - Wedding, Altes Röntgenhaus R.1005, Augustenburger Platz 1, D-1000 65, F.R.G.

07-11 **COMPUMAG - 8th Conf. on Computation of Electromagnetic Fields**  
Location: Sorrento, Italy  
Contact: Compumag, Università di Napoli "Federico II", via Claudio 21, I-80125 Napoli, Italy

22-24 **5th Int. Conf. on HF Radio - Systems & Techniques**  
Location: Edinburgh, U.K.  
Contact: IEE Conference Dept.

26-28 **3rd Int. Conf. Power System Monitoring & Control**  
Location: London, U.K.  
Contact: IEE Conference Dept.

### September 1991

04-06 **Int. Conf. Digital Signal Processing**  
Location: Florence, Italy  
Contact: Prof. V. Cappellini, Dipartimento di Ingegneria Elettronica, via di S.Marta 3, 50139 Firenze, Italy.  
Tel: +39 55 4796 279 Fax: +39 55 4043 92

11-13 **5th Internat. Conf. on Electrical Machines & Drives**  
Location: London, U.K.  
Contact: IEE Conference Dept

16-18 **SYROCO '91 - IFAC Symposium on Robot Control**  
Location: Vienna, Austria  
Contact: IFAC-SYR/91, Rockhgasse 6, A-1014 Wien, Austria

17-20 **5th Int. Conf. on AC & DC Power Transmission.**  
Location: London, U.K.  
Contact: IEE Conference Dept.

30-04 **International Conf. on Ion Sources**  
Location: Darmstadt, F.R.G.  
Contact: Dr. B. Wolf, GSI, PO Box 110552, 6100 Darmstadt 11, F.R.G.

### October 1991

28-31 **8th Int. Conf. on Automotive Electronics**  
Location: London, U.K.  
Contact: IEE Conference Department

### November 1991

11-13 **30th IEEE Conf. on Decision & Control**  
Location: Brighton, U.K.  
Contact: Prof. P. Antsaklis, Dept of Elect. & Computer Engineering, University of Notre Dame, Notre Dame, IN, 46556, USA

12-14 **NEOS '91 - 4th Int. Conf. on Networks and Electronic Office System**  
Location: London, U.K.  
Contact: IEE Conference Dept.

### 1992

04 May **CompEuro '92 - Advanced Computer Technologies, Systems & Applications**  
Location: Zurich, Switzerland  
Contact: Prof. P.M.Dewilde, Delft Inst. of Technology, Dept of E.E., Mekelweg 4, NL-2620 CD Delft, The Netherlands

18 May **EUROCON '92**  
Location: Zurich, Switzerland  
Contact: Prof. A. Kundig, Institut für Technische Informatik und Kommunikationsnetze, ETH-Zentrum, CH-8092, Zurich, Switzerland

23 Jun **PESC '92 - IEEE Power Electronics Specialist Conf.**  
Location: Madrid, Spain  
Contact: Dr. F. Aldana, University Politécnica de Madrid, Ramiro de Maeztu sn, E-28040, Madrid, Spain

29 Oct **14th IEEE Int. Conf.- Engineering in Medicine & Biol.**  
Location: Paris, France  
Contact: Dr.S.N.Laxminarayan, Academic Computing Centre IST, University of Medicine & Dentistry, 185 South Orange Av., Newark NJ 07103, USA

### 1993

26 Apr **INTERMAG '93**  
Location: Vienna, Austria  
Contact: Courtesy Ass. Inc., 665 15th St., N.W.Suite 300, Washington, DC 20005, USA

11 May **CompEuro '93 - Computers & Manufacturing**  
Location: Montpellier, France  
Contact: Mr. Alain Crosier, IBM France Service 3862, Dev. Techno., 3-5 Place Fendome, F-75001, Paris, France

23 May **ICC '93 - International Conference on Communications**  
Location: Geneva, Switzerland  
Contact: Prof. DR. P.Leuthold, Institut für Kommunikationstechnik, ETH-Zentrum, CH-8092, Zurich, Switzerland.

IEEE Conference Department,  
Savoy Place, Victoria Embankment,  
London, England, WC2R 0BL

The Conference Coordinator is always pleased to receive information on future conferences & exhibitions being held in the Region.

IEEE Region 8 Conference Coordinator,  
Dr. J. Baal-Schem, PO Box 1205,  
Holon 58112, Israel

### North Italy

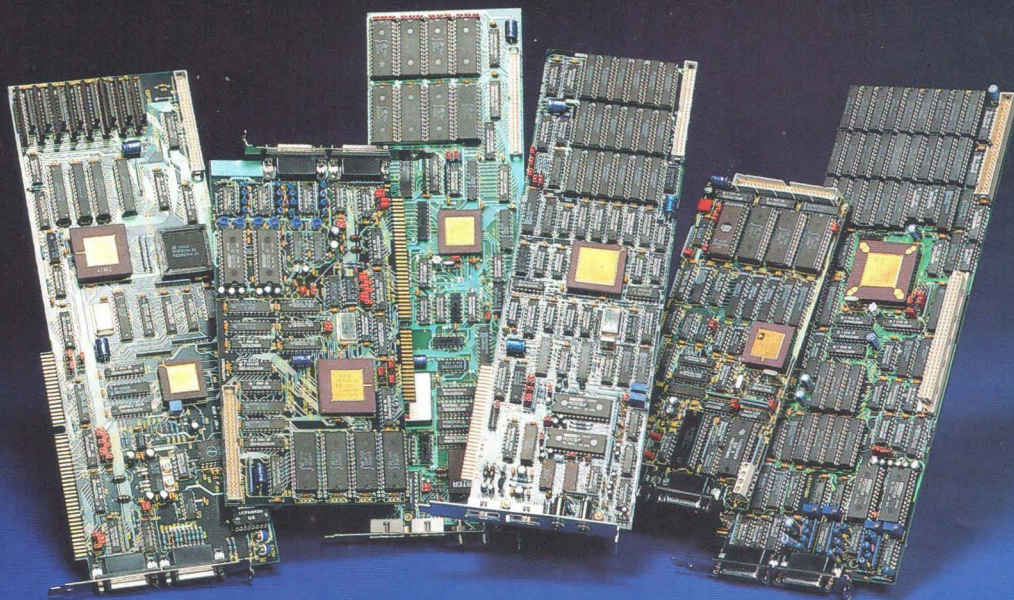
The following corrections should be made to the list of Section Officers printed in the August Region 8 News.

Ing. Giuseppe Luoni  
(Secretary/Treasurer)  
Società Cavi Pirelli S.p.A.  
Viale Sarca, 202  
20126 Milano, Italy

Prof. Mauro Santomauro  
(Co, Newsletter Ed.)  
Dipartimento di Elettronica del Politecnico  
Via Ponzio 34/5  
20133 Milano, Italy



# Digital Signal Processing on the IBM PC



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# Egypt

By Prof. Abdel-Latif I. Ahmed

## Membership Development

A working dinner arranged by the Egypt Section in September 1900 was attended by top executives from Industry, Telecommunications, Broadcasting, the Deans of Engineering Faculties, Fellows and Senior Members of the IEEE. The Chairman of the Egypt Section reviewed the benefits available from Institute membership, stressing the valuable scientific and engineering services it provides for over 320,000 members in more than 130 countries of the world. The meeting was requested to encourage engineers and students to join the IEEE. The Egypt Section will try to provide UNESCO coupons so that they are able to pay membership dues and sub subscriptions.



## Student Chapters

Efforts are being made to establish new Student Chapters in the 14 Faculties of Engineering in Egypt.

## Technical Activities

The Section continues its technical lectures and symposia through its Society Chapters.

**Chapter Chairman:** Prof. Abdel-Latif I. Ahmed, 50 Madinet El-Ilam, F-410 Agouza, Cairo, Egypt. Tel: +202 701 326. Fax +202 700 834

# Norway

By Mr. Fritz Bekkadal

The Bergen Section has been approved and established with Dr. Sukanta Ray as Interim Chairman.

A petition to form a new joint Chapter in Communications and Vehicular Technology has been prepared and forwarded by Dr. Steinar Andresen. Its first seminar is planned for January 1991 in Trondheim.

The Section is heavily involved in two forthcoming international conferences to be held in Norway.

- VNIUS '92 (Vehicle Navigation and Information Systems) proposed that it will be held in the Oslo Plaza Hotel in September '92. Planning is now in progress in close cooperation with a.o. The University of Trondheim - Norwegian Institute of Technology (NTH), SINTEF (The Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology and the Norwegian Society of Chartered Engineers - NIF).
- INSIT '94 (International Symposium on Information Theory) has proposed that this conference will be held at the University of Trondheim - Norwegian Institute of Technology (NTH) in June-July '94. Planning is going ahead in close cooperation with a.o. NTH, NTH Conference Office, SINTEF and the Convention Bureau in Trondheim.

**Section Chairman:** Mr. Fritz Bekkadal, Elab-Runit 7034, Trondheim, Norway. Tel: +47 7 59 43 12. Fax +47 7 59 43 02.

# Denmark

By Dr. K-V. Weisberg

The Denmark Section had a total of 394 members at the spring minimum, 17% more than last year.

The Section is organising some 17 technical meetings this year in collaboration with the Danish Society of Electrical Engineers (DIF). The winter programme includes amongst others:

DS (Danish Standard) in a harmonised market )23. okt)

The future of Personal Radio Communication (7.nov.)

Fuel cells (16. Jan)

BERKOM, (5.feb)

The annual meeting of the Section will take place in December, further notice will be given.

Secretary/Treasurer: Kund-V Weisberg, OFD/PLF Risø, 4000 Roskilde.

Membership Development: Prof. P. Martin Larsen, Power Eng. Dept., DTH byg. 325, 2800 Kgs Lyngby.

**Section Chairman:** Dr. Ove Skovgaard, LAMF, DTH byg. 303, 2800 Kgs, Lyngby, Denmark.

# Sweden

By Dr. Anders Derneryd

## Chapters

The Power Engineering Chapter has been formally established. Chapter Chairman is Roland Eriksson at KTH, Stockholm (Tel: 08 790 79 88). Congratulations and good luck with the technical programme.

In Kista the VT/COM Chapter is planning a seminar on Cellular Mobile Telephone Systems and in Linköping a seminar on Pattern Recognition. The Chapter Chairman Henry Scheffe (Tel: 08 719 21 59) will happily tell you more about these events.

There are 100 members belonging to the Signal Processing (previously ASSP) Society and 50 members belonging to the Aerospace & Electronic Systems (AES) Society in Sweden. This is sufficient to form and run Chapters within these technical fields. Are you interested in organising new Chapters? Please contact the Section Chairman for details.

## University Codes

I must apologise for omitting last time two universities in the northern part of Sweden. Please add the following schools to the list of

universities in Sweden:

Lulea University - IEEE Code 81753  
Umea University - IEEE Code 06703

## Anniversary

The Sweden Section celebrates its 25th anniversary this year. It was founded on 20th March 1965. We now have 800 members in Sweden; the annual increase is about 10%.

**Section Chairman:** Dr. Piotr Starski, Chalmers University of Technology, Division of Network Theory, S-412 Göteborg, Sweden. E-mail: piotr@nt.chalmers.se (UUCP).

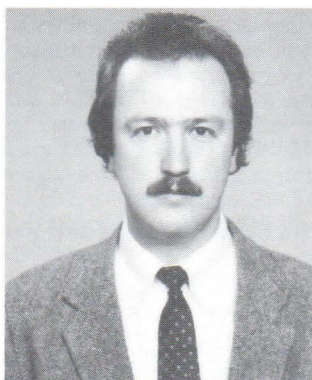


# Turkey

By Dr. Levent Onural

## Greetings from Turkey

Our young Section is now officially one year old. As expected, we are growing quickly; our membership has now reached 265 including students. We are doing very well in terms of activities, and 1991 will be quite rich. First of all, there will be a conference which is intended for graduate student paper presentations. This is the first activity of the newly born Bilkent University Student Branch. Details of the conference are summarised by Gözde Bozdagi in this issue of the Region 8 News.



Another major event will be the International Workshop on Higher Order Statistical Methods in Optics, Signal Processing and Geophysics. This workshop will be held in the summer of 1991 and will be organised by, again newly born, the Signal Processing Chapter. For more information, please contact A. Enis Cetin, Bilkent University, Bilkent, TR-06533 Ankara, Turkey. (Fax: +90 4 266 4127). There will be many field trips to interesting sites. After the very good attendance and very positive feedback we had from our trip to VESTEL Electronics Industries Plant in Manisa, in 1991 we plan trips to Gölbaşı Satellite Ground Station of PTT in Ankara and to Southeast Anatolia Project (GAP) site. As usual, seminars will be frequent and followed a social event.

## Telecommunications Awards

I would like to bring to the attention of all IEEE members that the Turkish PTT is celebrating its 150th anniversary this year. To honour this event PTT is granting science and promotion awards in the field of telecommunications. The awards are grouped, this year, into three categories: science award open to residents of Turkey (US\$ 20,000 for the best paper), science award open to non-residents of Turkey (US\$20,000 for the best paper), and promotion awards open to residents only. The total amount of these awards is of the order of US\$100,000 for the three best contributions in each category.

The selection is based on a single work of an applicant presented in the form of a paper. The jury has already completed the evaluation and the results will be announced before this article is published. Turkish PTT will continue with its awards programme in telecommunications regularly from now on, but the rules, themes and the value of awards may be different each year. It is very likely that among the award winners there will be IEEE members. So, if you intend to participate I encourage you to do so; and if the rules and call for participation do not reach you, you can get in touch directly with PTT AR-GE Department, Dikmen Postahane Binasi, Dikmen, Ankara, Turkey.

## Chapters

I am hoping that we shall have more chapters in our Section; any member who volunteers to start a new chapter is welcome. To form a chapter at least twelve members must sign a petition. It is possible to have joint chapters with members from different Societies, as well as joint chapters among different geographical Sections.

Turkey wishes to increase its relations with non-Turkish IEEE members and we are open to suggestions for joint activities.

Professor Okay Kaynak, who has served on our executive committee, has recently resigned due to his having taken sabbatical leave. I should like to thank him for his valuable contributions during the last year. A new member will be appointed in the near future.

**Section Chairman: Dr. Levent Onural, Bilkent University, Bilkent, TR-06533 Ankara, Turkey.**

## Bilkent Student Branch

By Gözde Bozdagi



I am very happy to announce that the IEEE Student Branch at Bilkent University is now formed, and elections have been completed. We congratulate the incoming officers on their election.

One of the first activities of the branch will be BILCON '91, a student conference on electrical, electronics and computer engineering. It will be held in Ankara on 15-16th July 1991 and will be in Turkish. The conference will focus on four main subjects: power electronics, electrical machinery and control; electronics and signal processing; telecommunications and electromagnetic waves; and computer technology.

The conference is open to all students, undergraduates and graduates. At least one of the authors must fulfill the student criterion and he/she must present the paper at the conference. At the end of the conference the best paper award will be given. The award is named after Dr. Bulent Kerim Altay from METU; an IEEE member who died in a traffic accident in 1989. The winner of the contest will be chosen by a technical committee on the basis of both the written paper and the presentation. Deadlines: 400-800 word summary is due on February 1st 1991; the acceptance of papers will be notified by 1st March 1991 and the camera-ready copy is due before April 16th 1991.

For more information please contact Gözde Bozdagi Bilkent University P.K.8, 06572 Maltepe, Ankara.

**Chairman Bilkent Student Branch: Gözde Bozdagi, Bilkent University P.K.8, 06572 Maltepe, Ankara, Turkey.**

# Poland

By Professor Andrzej Filipkowski

On 21st-25th July the highest IEEE authorities visited Poland: President Carlton Bayless, Vice-president Robert T.H. Allen, General Manager Eric Herz and Regional Director Sven-Olof Örvik. Many pertinent Section problems were discussed: stimulation of recruitment, difficulties in contacting Headquarters and in sending dues, financing the Section Library and Newsletter, and the creation of Chapters. Our guests took part in the Section Executive Committee meeting. On 19-20th April the Regional Committee will meet in Warsaw. The first chapter has been established in Poland - a joint chapter: Antennas & Propagation/Aerospace & Electronic Systems/Microwave Theory & Techniques. Prof. Zbigniew H. Czyz is the chapter organiser.

Student Branch activities were substantial, the number of student members having grown considerably since the Polish currency is now

more or less convertible. Recently the Branch received a group of students from ETH in Zürich (among them IEEE members); this could be the beginning of a very interesting cooperation. The creation of an international database of student exchanges, professional training possibilities etc. is continuing.

In May 1991 the Branch will organise in Warsaw, a large conference of European Informatic Students called KIF (Konferenz der Informatik Fachschaften). It will be the first KIF in its 18 years history in an Eastern European country - we expect some 400 participants. With the beginning of the new academic year, a great student campaign is planned, leading we hope to a substantial increase in new members. The activities of IEEE weekends, as planned in Vienna, will begin, probably with one of the German Branches.

**Chapter Chairman: Prof. A. Filipkowski, Komarowa 88-11, 02 507, Warsaw, Poland.**



# Course Calendar 1991

## Communications

### MICROWAVE AND RADAR

February 25–28, Germany	112 Modern Microwave Techniques
	125 Antenna Measurement Techniques
	133 Aspects of Modern Radar
February 25–March 1, Germany	153 MESFET and Heterostructure Based MMIC's
April 15–19, Italy	106 RF and Microwave Circuit Design I, Linear Circuits
April 22–25, Italy	148 Digital Microwave Systems: Theory and Applications
April 22–26, Italy	120 RF and Microwave Circuit Design II, Non-Linear Circuits
November 11–15, Germany	119 RF/MW Circuit Design: Linear/Non-Linear
	127 RF/MW Component Modelling

### COMMUNICATIONS

March 11–14, UK	158 Modern Digital Modulation Techniques
	146 Signalling System No. 7 and Intelligent Networks
March 18–21, UK	149 Advanced Digital Communications
	156 Broadband Telecommunications
April 15–18, Italy	177 Modern Digital Communications for Space, Satellite and Radio
	101 Simulation of Communication Systems: Computer-Aided Modelling, Analysis, and Design
April 22–26, Italy	123 Satellite Communication and Broadcasting
June 3–7, Italy	137 Error Correcting Codes and Reed-Solomon ECC
	188 Combined Digital Coding and Modulation Techniques
June 10–14, UK	143 Communication Satellites: System Engineering and Launching
August 26–30, Switzerland	103 Fiber Optical Communication Technology and Systems
September 9–13, Germany	177 Modern Digital Communication for Space, Satellite and Radio
	101 Simulation of Communication Systems: Computer-Aided Modelling, Analysis, and Design
October 14–18, Spain	146 Signalling System No. 7 and Intelligent Networks
	123 Satellite Communication and Broadcasting
	156 Broadband Telecommunications
	158 Modern Digital Modulation Techniques
	149 Advanced Digital Communications

### SIGNAL PROCESSING

March 18–21, UK	110 Digital Signal Processing, Filtering and Estimation
June 10–13, UK	111 Frequency-Time and Spatial-Time Signal Processing
October 14–17, Spain	113 Signal Processing in Sonar
November 4–8, UK	128 Fast Algorithms for Adaptive Signal Processing
	155 Algorithms for Control Systems Design
	109 Adaptive Signal Processing
	114 Array Signal Processing
November 11–15, Germany	174 Multirate Signal Processing
	107 Sample-Data and Analog MOS
	182 Digital Signal Processing

### CONTROL ENGINEERING

November 4–7, UK	122 Adaptive Control
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### NEURAL NETS, SPEECH AND PATTERN RECOGNITION

June 3–5, Italy	189 Speech Recognition
September 9–13, Germany	142 Adaptive Neural Networks
November 4–7, UK	141 Neural Computing and Pattern Recognition

### INFORMATION TECHNOLOGY

June 10–14, UK	138 EEC for Data Recognition
	140 Signal Processing, Modulation and Noise in the Recording Channel
September 9–13, Germany	108 Magnetic and Optical Storage of Data

For further information contact:

CEI-EUROPE/ELSEVIER, Box 910, S-612 25 Finspong, Sweden, Ph +46 122-175 70, Fax +46 122-143 47, Tx 64471 CEIEUR S



# Test Technology in Europe

*Dr. Colin Maunder*

The European Test Technology Technical Committee (run under the auspices of the IEEE Computer Society's TTTC) provides a focus for professional test engineers across Europe. This article outlines the European TTTC's principal activities, lists the current committee members and indicates how you may learn more about European TTTC events or become involved in the committee.

## The European Design-for-Test Workshop

Since 1981, seven Design-for-Test workshops have been held in Europe, each in a different country. The most recent workshop was held in Segovia, Spain in June 1990 and was organised by Carlos Lopez-Barrio, Telefonica Investigacion y Desarrollo. The next workshop will be held in Belgium in June 1992 and will be organised by Jim Jamieson, Alcatel Advanced Manufacturing Technology Centre.

The Design-for-Test Workshop is a limited-attendance meeting, where all attendees are expected to contribute either a verbal or a poster presentation. To encourage the free exchange of information between attendees, all presentations are "off the record".

There are no published proceedings, but attendees may supply handouts about their work if they wish.

## The European Test Conference

The first European Test Conference was held in Paris in April 1989. The event attracted some 340 participants from Europe (West & East), the Americas and other countries. Approximately 65% of the attendees were from industry.

The objective of ETC is to provide a high-quality forum in Europe for the discussion of technical developments in electronic product testing. All types of product are addressed, from integrated circuits through to systems, as well as all stages of testing from design and manufacture through to field diagnosis and repair.

The second conference - ETC '91 will be held in Munich between 10th and 12th April 1991. As in 1989, both conference and tutorial programmes are planned so that attendees can obtain good value from attendance at the event. In addition, for ETC '91 plans are being developed to increase the involvement of test-product vendors, for

example through the provision of suites and small exhibition booths at the conference venue. It is hoped that the vendor involvement will grow into a full-scale exhibition in future years.

## Other Activities

In addition, European TTTC members contribute to various activities of the parent organisation - the IEEE Computer Society TTTC. For example, committee members participate in the organisation of the International Test Conference, contribute to the TTC Newsletter, and serve on working groups developing IEEE standards.

For the future, the committee hopes to expand its activities - particularly those which encourage communication between test engineers working in different European countries, both inside and outside the European Community.

## Who are the European TTTC?

The following list shows the current members of the European TTTC and where appropriate their specific roles: *(Continued on Page 6)*

## Power Electronics Specialists Conference Cambridge, Massachusetts, U.S.A. 24-28th June 1991

The 22nd annual Power Electronics Specialists Conference (PESC) will be held on June 24-28th 1991 at the Massachusetts Institute of Technology in Cambridge Massachusetts, U.S.A. The conference is sponsored by the Power Electronics Society of the Institute of Electrical and Electronics Engineers (IEEE). Typical attendance is over 350 persons, with one third of them from outside North America.

PESC brings together specialists in circuits, systems, electron devices, magnetics, control theory, motors, instrumentation, superconductivity applications, and power engineering for interdisciplinary discussions of new ideas, research, development, applications, and the latest advances in the field of power electronics. Highlights of the conference include technical sessions, a tutorial, and informal rap sessions with leading specialists. There are also several social and spouses' events.

For further information please contact:

*Conference Chairman:*  
**Professor Martin F. Schlecht**  
Room 39-553  
Dept. of Elec. Eng Comp.Sci.  
M.I.T.  
Cambridge, MA 02139  
Telephone (617) 253 3407

*Program Chairman:*  
**Professor Deepakraj M. Divan**  
Elec. & Comp. Engr Dept.,  
1415 Johnson Drive,  
Univ. of Wisconsin-Madison,  
Madison, WI 53706-1691  
Telephone (608) 262 5702



# South Africa

By Professor P.W. Van der Walt

The Section continues to grow at a steady pace. This can be seen from the increase in membership to 532, as well as in the increase in activities and meetings. Two new chapters are in the process of formation. An Energy Chapter has already been approved, while an application has been made for the formation of a Control Systems and Instrumentation and Measurements Chapter. Three symposia were held; all were very well attended and made a significant contribution to the pool of knowledge in this country.

## Parallel Processing

This is fast becoming one of the major research fields as the need for more efficient and faster processing becomes more important in widely varying applications. The Computer Chapter, in collaboration with the Universities of Stellenbosch and Witwatersrand, and IFIP, organised two very successful symposia on parallel processing on 21st and 28th May at these two locations. Dr. Gerhard Peise from the West Germany company Parcom, was the guest speaker.

The idea of splitting the conference over the two venues to save travelling expenses, worked very well. Dr. Peise presented papers at both venues while the remainder of each day was filled with papers from local speakers. About 60 people attended at WITS while more than 85 were present in Stellenbosch, showing the increasing interest in the field.

Included in the programme were topics such as the applications of parallel processing to neural networks, a transputer based access control system, parallelisation of matrix-based analysis procedures and real time systems such as a transputer virtual memory processor. A clearly encouraging fact emerging from the papers presented, is the annual increase in the quality and volume of research in parallel processing in South Africa, research which is still dominated by the transputer.

## COMSIG 1990

This year's conference was held on 29th June at the University of Witwatersrand. The one-day conference consisted of three parallel sessions, signal, image and speech processing. Special sessions included meteor burst communication, packet radio systems, and coding and modulation. Some 160 people attended the conference. Five international papers were accepted, but the authors failed to turn up to present them. The DATAFUSION Best Paper Award was won by

Robert S. Mawrey from the University of Natal for his paper: "A Comparison between Predicted and Measured Annual Cycles of Meteor. The prize consists of an air fare for attending ICASSP(91) in Canada!

## AP/MTTS 1990

A very successful one-day AP/MTTS conference was held on 24th August at the Lord Charles Hotel in Somerset-West. About 180 people attended, of whom approximately half were from industry. The one-day format seemed to enjoy support especially from industry, as opposed to the three-day conferences held in previous years.

Two parallel sessions, one for Antennas and Propagation and the other for Microwave Theory and Techniques, ran throughout the day. A very positive change in this year's conference was the number of papers received from industry - 19 as opposed to 1 in 1988. This clearly shows the increasing commitment of South-African industry to research and development. Another 'first' for this conference was the use of poster sessions for the presentation of a number of papers. The use of three sessions and the limited time allotted to each speaker, 15 minutes, allowed the presentation of 57 papers - 37 were presented during the three-day conference in 1988.

Four prizes of R1000 were awarded, one in each category and also a special prize. The prizewinners were J.Green from the University of Capetown for his paper "A novel solution to error in a submillimetric electro-optical distance measuring instrument due to modal cancellation in an optical fibre". Piet Smit and P.W.van der Walt from ESD-South and the University of Stellenbosch respectively for the paper "A model for large steps in microstrip linewidth in RT Duroid 6010, useful to 2 GHz". E.W.Schumann from Frinaker, D.M.Smith, A.W.Stokes and H.L.Natras from the University of Natal for the paper "Development of an experimental travelling wave tube". And J. Joubert and D.A. Mc Namara from the University of Pretoria for the paper "Recent Progress in the analysis of longitudinal slots in the broad wall of rectangular waveguides."

*Section Chairman: Prof. P.W.van der Walt, PO Box 2169, Stellenbosch 7600, South Africa. Tel: +42 2 743 051.*

## For Students

By Mr. Mikko Katajamaki

### Hi all you students in Region 8!

Have I ever talked about getting transnational? Well, I don't want to be boring, but that's what it is all about.

To travel to foreign countries and see different cultures is very educating, and fun; to go on excursions and gain new friends in great; but those are really the first steps to being international. The second step might be to work abroad. Luckily enough, there exist nowadays various student exchange organisations which are there to help you to fulfil this ambition. Find out what organisations have representatives in your university. The time to start thinking about next summer is now, so figure it out whether

you would like to work for a while in some country. Ask someone who has been a summer trainee in another country.

Getting abroad doesn't only have to be for a short while as a summer trainee, you can also spend a whole term studying in some foreign university; there are some international programmes for this too. A friend of mine studied last year in the University of Michigan, USA and now he is doing his final work at the University of Hamburg, Germany. Think about what a marvellous international engineer he will end up. Go and ask your professor if he knows anything about such programmes; but act now, since there is a limited number of opportunities.

The Student Branch of ETH Zürich has started to gather information about summer jobs and student exchange programmes in a

database called IEEE Region 7 Student Job and Exchange System. To help yourself and your fellow students you could help in this job by sending information about exchange programmes in your university and country to:

IEEE Region 8 SJXS, Thomas Riedel, Institut für Automatik, ETH-Zentrum, Room ETL, K13, CH-8092 Zürich, Switzerland.

All good things come to an end, and so it is with my term as the RSR of Region 8. I thank all those I have had the honour to meet under the IEEE activities and wish all of you the very best. Remember that your future always lies in your own hands. Be active!

**Region 8 News wishes all its Readers a Restful  
End-of-year holiday  
and a Rewarding 1991**

*(Don't work too hard)*



# An International Challenge to our Engineering Associations

By Dr. Hugo Rüchardt - Past Secretary IEEE

In spite of repeated protestations to the contrary the Institute is still regarded by many as a U.S. National Society, at times even with the subtle implication that it has some political purpose not unconnected with the economic policy of the United States. Since some 80% of its almost 350,000 members come from America, one may understand this point of view, but it is a false picture. The global organisational structure of the IEEE, with its broad base of international members, and its regional representatives elected by local members, guarantees a far higher degree of international self-awareness than can be found in the National Societies.

Not only that, but recently there has been a number of developments which have caused quite a commotion, both inside and outside the IEEE: a five fold increase in international members in comparison with the U.S.; changes in the relative power of the three largest economic entities - the U.S., Japan and Europe; the East/West conflict is not the major problem it once was; and an increased environmental awareness is now an international reality. In all this it is engineers, not the military or legal authorities, who are more important, and more directly involved, in the determination of our future well-being. There has been a rapid increase in the responsibility placed upon the shoulders of those with technical knowhow and ability.

In direct contrast however, neither the ordinary engineer nor the national engineering associations have sufficient awareness of their global responsibilities. Does the reason for this lie in the inherent bureaucratic structure of these organisations, in the problem of communicating or in the fact that they may be no more than mere interest-groups? Why are practically all Engineering Associations in Europe doing so little about working together? And in view of the tremendous increase in importance of the EEC, for instance in matters of standardisation, of common research programmes, of public and general economic development, why has the typical member of, for example, a German Engineering Association, VDI or VDE, been largely excluded from challenges beyond the national fence? (A comment which could be applied to all our European neighbours.)

A growing number of our large companies in Europe has long since acknowledged the signs of the times; with results which can be seen in international mergers and takeovers: ABB, SEI/Alcatel, SGS/Thomson, Siemens/Plessey, Philips/Grundig and others. Should we not have amalgamated into European Professional Societies long ago, for instance in Computers and Information Technology, Power Engineering, Medical Electrotechnology and so on? This could quite

naturally follow from the many firmly established international technical conferences already in existence, but the necessary European institution has not yet been established. National professional organisations on their own often lack power and freedom and are in danger of becoming too provincial.

What are our choices in this situation? We might foster the rapid development of that umbrella - the European electrical engineering organisation EUREL; transform it into an active association with a European membership and provide it with appropriate professional societies, a European voice in Brussels, a powerful publication division and adequate weight to intervene in future international agreements. Or encourage the development of the IEEE's Region 8, with its current membership of some 27,000. The Institute already possesses a clear and powerful organisational structure, an internationally unique system of technical societies, technical journals and much more besides. Obviously it would be necessary to modify the present strongly USA oriented IEEE organisation, which would have to be drastically internationalised, or should it be "decentralised".

European physicists founded their own Society, the European Physical Society as early as 1968. It has since made good progress, with clearly defined goals which transcend country boundaries, and is everywhere held in high regard. Engineers would learn a lot from this, there is much to admire. Speaking personally I was delighted with the new General Secretary of the VDE Dr. F.D. Althoff. His clearly expressed desire to break free from the shackles of nationalism and to create an organisational structure capable of holding its own in Europe is laudable. A first step, small perhaps, is the formation of two European Transactions on Energy and on Communications - it shows considerable promise.

Another route for promoting worldwide agreement on objectives and coordination in the essential areas of Electrical Engineering is that which has been advanced by UNO for decades. This involves purely international Expert Organisations, such as IEC, ISO and ITU for the creation of System Standards in different areas: IFAC for Automation, IFIP for Information Technology, CIGRE for Power Engineering and many others. However, none of these are institutions in the sense of membership organisations, which means that there is no development of informed opinion with the corresponding ability to carry things through on a professional basis. All the more reason for these organisations, operating on a global scale, to partner an international Engineering Association. We should remember that however many associations and parallel organisations there are, the number of experts available to work productively in these structures remains finite; wherever you go, it is always the same people, whether the organisation is the VDE, the IFAC, the IEEE or URSI. Optimising the effectiveness of this small workforce could be an important organisational criterion for all of us. (By courtesy of *"Mikroelektronik Bd 4-1990"*)

## CompEuro '91

By Prof. Vito A. Monaco - Italy

This IEEE International Conference on "Advanced Computer Technology, Reliable Systems and Applications" will be held at the Palazzo della Cultura e dei Congressi in Bologna, Italy on 13-16th May 1991.

The aim of the conference is to provide an international forum in Europe for experts to discuss the latest results in computer technology, systems applications and their interactions. The Conference topics are: Computer architecture, dedicated systems, computer communication, systems and software, models and algorithms, VLSI design, production and testing, and computer components.

More than 150 papers will be presented in plenary sessions, topic parallel sessions and poster sessions. Thirty papers are invited; the remainder are contributed papers selected from the more than 220 received.

The first day will be devoted to introductory tutorials which should provide a technical update on the key topics covered by the conference proper. The following panel sessions are included in the programme: computers in education, neural networks, computer communication and protocols, financial support for research and technology transfer to medium and small industries, the future of the Personal Computer. A special session is scheduled for 16th May for the presentation of late news papers which should be submitted to the technical committee chairmen not later than 1st May; notification of acceptance will be given by 14th May

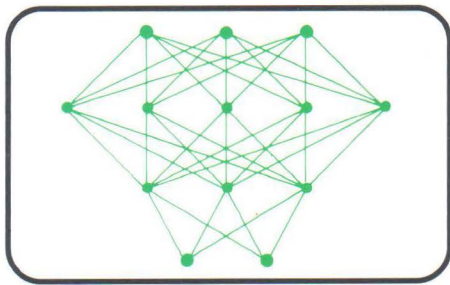
during the conference.

Awards will be given for the best student papers among those submitted, on condition that the first author is a student and the paper is clearly marked for the awards. A technical exhibition also is planned to complement the conference. It will include components, equipment, demonstrations and technical literature.

CompEuro '91 has been designed to offer its participants and their accompanying persons many interesting social events and visits to historical and cultural sites in Italy. The "Palazzo della Cultura e dei Congressi", where CompEuro '91 will be held, is one of the best conference sites in Italy; it is well connected to the city centre, the railway station and the international airport.



## Second International Conference and Exhibition on



### ARTIFICIAL NEURAL NETWORKS

Bournemouth International Centre, UK  
18 - 20 November 1991

The principal objective is to provide a forum for discussion of recent advances in the field, to review progress and highlight key directions for artificial neural network research.

#### SCOPE

The Conference will cover four principal areas of interest:

- Architecture for artificial neural networks: Network structure and hierarchy, Analysis and Design of neural network
- Learning algorithms: Theoretical treatment of algorithms, Evaluation of performance, Comparison with classical techniques.
- Implementations: Parallel simulation/architecture, Hardware implementations (analogue and digital), VLSI devices or systems, Optoelectronics.
- Applications: Vision and Image Processing, Speech and language processing, Communications systems, Biomedical systems, Robotics and control, AI applications, Expert systems.



**For further details on the Conference or Exhibition facilities and Charges please contact:**

ANN 91 Secretariat, IEE Conference Services  
Savoy Place, London WC2R 0BL

Tel: 071 240 1871 Ext 222

Telex: 261176 IEE LDN G. Fax: 071 497 3633

## COMPUTER SIMULATION

### Engineering the Future

IEEE Video Conferences & Seminars via Satellite

**Broadcast Live to Germany + Other Parts of Europe**

November 7th, '90 6:00pm - 9.00pm (European time)

#### PRESENTERS:

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Dr. Philip L.F. Liu

Dr. Stephen C.Y. Lu

#### TO BECOME A SITE, CONTACT:

Infoware

Joachim Turowsky

Tel. No. 022/597 0032

#### COURSE DESCRIPTION

*This videoconference will present a vision of the future for engineers who are currently faced with the task of utilising computer simulation to explore and understand design concepts. Video demonstrations of the applications introduced will be used to present several simulation models.*

#### Programme Outline

- \* Simulation and Synthesis
- \* Numerical Simulation and Visualisation of Non-linear Free Surface Dynamics
- \* Putting Knowledge to Work for Intelligent Simulation
- \* Questions and Answers



## EUROPEAN CONFERENCE Integrated Home Applications

13th-15th January 1991

The 11-member Home Systems Consortium, representing a major European Industrial forum, will present the results of a two-year ESPRIT project on the realisation of a standard specification for Home Systems.

This Home System specification will form the backbone of an integrated system for the home, linking individual appliances and devices together.

The HS specification will be explained in detail by technical experts from the Consortium, and a draft specification will be issued to the conference delegates. Invited speakers will place this work in its international context.

A supporting exhibition will show aspects of Home Systems in operation.

### RAI Conference Centre

Amsterdam, The Netherlands

#### Conference Secretariat I.H.A.

C/o RAI Organisatie Bureau Amsterdam bv

Europaplein 12

1078 GZ AMSTERDAM

Phone: (31) 20-549 12 12

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DEIS, Università di Bologna,

Viale Risorgimento 2,

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Further details on page 15 of this Region 8 News