# IEEE Region 8 News

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Man

Editor

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### A New Year

By The Region 8 director

This is the first issue of Region 8 News for 1994 and although our Region continues to suffer the effects of the recession I should like to take this opportunity to wish all our members a successful and productive year. It is good to report that Region 8 membership continues to grow in spite of the well-known problems in the electronics industry. New initiatives being launched this year by the IEEE should stimulate further growth and also improve the retention rate of existing members.

The opening of the new Customer Operations Centre in Brussels on December 13th 1993 marks a further development in IEEE's policy to improve its service to non-U.S. members. Within a few months an on-line link to the membership database in Piscataway should be completed, allowing a more rapid response to members' queries, including problems concerning dues, renewals, non-receipt or delays of publications, etc., to be given to members calling via toll-free numbers. Initially, not all Sections will be able to benefit directly from the new Brussels centre but it is expected that the great majority of Region 8 members will enjoy easier access to the Regional Activities office.

A great deal of work has been done by IEEE staff members in the past year to bring more benefits to those outside the U.S.Regions 1-6. U.S. members can already take advantage of a number of financial and insurance programmes, including a credit card, through IEEE. These programmes will eventually be offered to members in Region 8, Section by Section, as local banking and insurance laws allow, starting later this year. Personal financial incentives are known to have been a strong inducement for U.S. engineers to join the IEEE and to remain long-term members. I believe that may eventually be the case for non-U.S. members.

The great differences within our Region naturally lead to questions about the possibility of greater devolution and local autonomy. For example: is it possible for Sections to deal more directly with members' problems, to collect dues in local currency, perhaps to employ a local administrator? Could the local dues be tailored more closely to the prevailing salaries of professional engineers, particularly in the Eastern European countries? Would this imply a new category of membership and if so, what would be the impact on the services offered to such members by the Institute? Would this development be good for the Institute? What about the relationship with the local National Society? These are some of the ideas being discussed, alongside proposals for various forms of subsidised membership, that are of great importance to our Region's future development.

In Region 8 there are already some examples of Sections that have decided to establish elements of local infrastructure to expedite dues payments, to assist in the running of technical meetings and conferences and in the production of newsletters. At our next Region 8 Committee meeting in Copenhagen, May 28-29th 1994, I shall invite Section Chairs to give their views on possible ways forward. The IEEE Board of Directors is looking to Region 8 to produce constructive, durable solutions to the complex problems which have resulted from the momentous political changes of the past few years. Make your views known to your Section Committee or directly to me via e-mail. (c.turner@ieee.org)

### Director-Elect 1994

Congratulations to Professor Peer Martin Larsen of the Denmark Section on his election as the next Region 8 Director. He will take office in January 1995. He received 1851 votes whilst Professor Baldomir Zajc, of Slovenia received 926 votes. Our best wishes also go to Professor Zajc, who has achieved admirable progress on behalf of the Slovenia Section.

# Changes in the Region 8 Committee

At the Region 8 Committee meeting held in Nice in October 1993, Basil Papadias (Greece Section), was elected as the new Chapter Coordination Chairman for 1994-6, to succeed André Vander Vorst who retired after 7 years of excellent service to the Committee. A presentation was made to Professor Vander Vorst at a dinner hosted by the Chamber of Commerce of Nice, The City of Nice, Sophia Antipolis and Cote dÁzur Development.

Kurt Richter, Past Director, was elected unopposed to become the Continuing Education representative for the Region for 1994-6

It was also agreed that the following posts would fall vacant at the end of 1994:

Conference Coordinator: (Jacob Baal- Schem, Israel)

Student Activities (Dick Poortvliet, Benelux)

Membership Development (WalterProebster, Germany)

Nominations for these posts should be sent to the Secretary, Basil Osborne, before the October 1994 meeting of the Region 8 Committee. (All three incumbents have expressed their intention to present themselves for election in October)

### ROOT

(Resource Officer Orientation Training)

Every Section now has the ROOT diskettes which provide an interactive information centre designed to help volunteers with over 1000 information items about the IEEE. Contact your Section Committee to find out more about ROOT and become better informed about the Institute.

Charles W. Turner - Director Region 8



By Mme. Frédérique Vallée

#### Conferences

In association with other Societies, the France Section of Region 8 is participating to the following conferences:

- Applications of Non-ceramic Outdoor Insulation for Transmission and Distribution Networks, Paris, Palais des Congrès, France, [June 7-8 1994].

The objectives of this conference are: to present the various electrical equipments manufactured for transmission and distribution networks, to estimate their performances and to compare them with those of standard equipment, to set out the various applications of such equipment and the corresponding specifications, including methods of installation

(inf. : Mme Vannier, SEE, 48 rue de la Procession, 75724 Paris Cedex 15, phone : (33) 1 44 49 60 17, fax : (33) 1 44 49 60 49).

- IPMU, (5th International Conference on Information Processing and Management of Uncertainty in knowledge-based systems), Paris, France, [july 4-8, 1994].

(inf.: Mme Bernadette Bouchon-Meunier, LAFORIA, Université Paris VI, Boîte 169, 4 place Jussieu, 75252 Paris Cedex 05, phone: (33) 1 44 27 70 03, fax: (33) 1 44 27 70 00, e-mail.: bouchon@laforia.ibp.fr).

- CEFC'94, (6th biennial Conference on Electromagnetic Field Computation), Aix-les-Bains, France [july 5-7, 1994].

The aims of CEFC are to present recent developments in the design and analysis of electromagnetic devices. Stress will be put on practical applications and specific problems related to numerical computation of electromagnetic fields.

(inf.: CEFC'94 Secretariat, Yves Maréchal and Gilbert Reyne, LEG, ENSIEG, B. P. 46, 38402 Saint Martin d'Hères Cedex, phone : (33) 76 82 64 03, fax : (33) 76 82 63 00, e-mail. : cefc@ensieg.fr).

- OCEANS 94 OSATES (Ocean Space Advanced Technology European Show), Brest, France [september 13-16, 1994],

(inf. : Mlle Bonami, SEE, 48 rue de la Procession, 75724, Paris Cedex 15, phone : (33) 1 44 49 60 60, fax : (33) 1 44 49 60 44/49).

- ICHPS-VI, **ERRATUM**: ICPH-VI will be held in Bologna, Italy, (and not in Paris, France), [september 94],

(inf. : M. Gian Carlo Montanari, Universita degli studi di Bologna, Facolta di Ingegneria, Istituto di Elettrotecnica Industriale, Viale Risorgimento 2, 40136 Bologna, phone : (39) 51 6443471, fax : (39) 51 6443470).

- ICEM'94, (International Conference on Electrical Machines), Gif-sur-Yvette, France, [september 5-8, 1994],

The purpose of this conference is to gather developers, users and researchers of all around the world to foster information transfer on recent developments and future tendancies in theory, computation, functioning and applications of electrical machines and drivers.

(inf. : M. Lucien Deschamps, secrétariat général de la SEE, 48

rue de la Procession, 75724 Paris Cedex 15, phone : (33) 1 44 49 60 60, fax : (33) 1 44 49 60 44/49).

#### News in French

### Conférences de l'A.R.E.

Dans le cadre des accords passés entre l'A.R.E. (Conférences du soir des Anciens de la Radio et de l'Electronique) et la Section française de l'I.E.E.E., nous annonçons les conférences suivantes :

- "L'entrée de l'électronique (et de la physique) à l'hôpital" (par Daniel Blanc, Directeur du Centre de Physique Atomique de l'Université Paul Sabatier, 12 janvier 1994).

- "Le point sur la T. V. H. D" (par Michel Favreau, ancien Ingénieur en Chef à Thomson-CSF, Division Radio Télévision, 23 mars 1994).

- "Le Big Bang : l'expansion et l'inflation de l'univers - point de vue d'un ingénieur", par Philippe Magne, ancien Directeur Technique de la Division Faisceaux Hertziens de Thomson-CSF, 27 avril 1994), première partie.

- "Le Big Bang : l'expansion et l'inflation de l'univers", suite et fin de la conférence précédente, 4 mai 1994.

- "Le Général Ferrié", par son biographe, le Professeur Amoudry, 18 mai 1994.

- En projet : conférence sur les très grands téléscopes, 15 ou 22 juin 1994, à confirmer ultérieurement.

Ces conférences auront lieu à 17h, dans la salle n° 11 de la FIEE, située au quatrième étage du 11 rue Galilée, PARIS 16ème - Métro Boissière ou Iéna.

L'entrée est gratuite, des rafraichissements sont servis pour clôturer sympathiquement la séance.

Pour tout renseignement ou confirmation, s'adresser à Mme Birckel, 193, rue du Faubourg Saint-Martin, 75010 Paris, tél : (1) 46 07 40 77.

### Conférences organisées par le chapitre EMC :

Le chapitre EMC organise un cycle de conférences du soir, chaque soirée étant enrichie de démonstrations :

- 31 janvier 1994, EMC et les Méthodes de Mesures et de Tests, par M. Chaumat (SNPE) et D. Mayer (LEAD),

- 30 mars 1994, EMC et le rôle des transferts EM : fils, câbles et structures à propagation, par M. Kirschvink (câblerie d'Eupen) et D. Mayer (LEAD).

Ces conférences seront payantes (100 FF).

(inf. Club 25, SEE, 48 rue de la Procession, 75724, Paris Cedex 15, tél. : (33) 1 44 49 60 17, fax : (33) 1 44 49 60 49).

#### Les mardis parallèles de l'IEEE:

Le groupe de travail intitulé "Parallélisme et systèmes distribués" fonctionne les mardis après-midi, une fois par mois, au CNAM de Paris.

(inf. J.F. Myoupo - Université Paris Sud - CNRS URA 410, LRI, bat. 490, 91405 Orsay, tél : 69 41 66 34, ou C. Cérin, Université de Picardie Jules Verne, UFR de Mathématique & Informatique, LAMIFA, 33, rue St Leu, 80039 Amiens, tél : 69 41 70 82, e-mail: cerin@lri.fr).

ESA

KCL

# Fourth International Workshop on DIGITAL SIGNAL PROCESSING TECHNIQUES

applied to

### **SPACE COMMUNICATIONS**

Will be held at
King's College London
for the European Space Agency
from

26th to 28th September 1994

Papers, with a strong DSP bias, are invited which could lead to useful and interesting discussion. An 800 word abstract should be sent, by 15th February 1994 (flexible) to one of the co-chairmen:

Carlo Elia, ESTEC European Space Agency NL-200 AG Noordwijk The Netherlands Fax: +31 1719 84596 Hamid Aghvami Elect. Eng. Dept King's College London WC2R 2LS, UK Fax: +44 71 836 4781

## Saudi Arabia (East)

By Dr. Khaled H. Biyari

The Saudi Arabian Section increased its activities last year. We have just cosponsored the Fifth International Conference on Microelectronics, which was held on December 13-15th, at King Fahd University of Petroleum and Minerals. The Section will also be cosponsoring a local Symposium on Energy Applications to be held at the end of the year.

The Section is organising a 'Technical Exchange Meeting' for the Section members; it is to be held on June 9th 1994. The purpose of the meeting is to discuss topics related to the environmental problems faced by electrical engineers and their role in the huge industrial development going on in the Kingdom.

We have also continued our seminar activities by sponsoring at least one seminar every month for the last five months. More seminars and technical dinner meetings are planned for this year. Moreover, two petitions for the formation of a new Communication Systems chapter and Power Systems are being sent to IEEE Headquarters.

Chapter Chairman: Dr. Khaled H. Biyari, King Fahd University of Petroleum and Mining. PO Box 711, Charan 31261, Saudi Arabia. Tel: +966 3 860 4263. Fax: +966 3 860 3535

## Membership Development

By Professor Dr. Walter Proebster

A Membership Development Workshop is now being planned for Brussels during the week-end of 23rd-24th April 1994.

It will deal principally of with the new IEEE Service Operation in Europe (see p1 of this Region 8 News). Mr. Jacques Kevers, manager of the Brussels office, will be among the participants.

Limited Travel funds are available and those wishing to attend should contact Professor W.E.Proebster, Institut fur Informatik, Orleanstrasse 34, D-81667, Munich 80, Germany. Tel: +49 89 48 095 223. Fax: +49 89 48 095223.

E-mail - w.proebster@ieee.org

#### Mr. E. Lawrence from Orpington, Kent, in England

having just celebrated his 85th birthday and his 64th year as a member of the IEEE, has written to the Editor expressing his thanks for the time which past and present officers of the Region have devoted to the wellbeing of the members. Such a generous testimonial cannot pass without acknowledgment; we wish Mr. Lawrence good health, and satisfaction from whatever activity he is now ejoys. Ed

Communications Research Group



University of London

# Data Compression for Voice Image and Video Signals

#### 18-20 April 1994

to be given by Dr. F. Marvasti Editor for Modulation and Signal Design IEEE Transactions on Communications

An intensive course, covering both theory and practical applications, for engineers in the telecommunications or TV Broadcasting industries and those with an interest in signal processing

Details from: Continuing Education Unit, King's College London.
Cornwall House Annexe, Waterloo Road, London SE1 8TX.
Tel: +44 71 872 3055/6. Fax: +44 71 872 3070

## For Students

By Mr. Roman Mittendorfer

#### Nine Day Antalya Tour

The IEEE Bilkent Student Branch is organising a tour for students, from 9-17 April 1994 (Region 8 News November 1993). The Programme includes historical and cultural sites, and also two days at the MELECON '94 in Antalya to attend the Region 8 Student Paper Contest. The cost for IEEE Student Members, including accommodation, breakfasts, dinners, transportation etc., is only \$290 US. Deadline for registration is March 1st 1994. For more information contact the IEEE Bilkent Student Branch (E-mail:ieeesb@ee.bilkent.edu.tror Fax: +90 312 266 4127)

### Deadlines & Information

February 28th: Outstanding Counsellor and Advisor Award nominations due to Student Services.

March 30th: Deadline for Communications Society Scholarship

March 30th: Deadline for American Electronics Association's Japan Research Fellowship programme.

May 1: Deadline for submission of Annual Report of Activities to Student Services. Rebate cheques are issued in August '94 contingent upon timely receipt of Annual Report.

Remember to send to the IEEE Headquarters your New Officers form and the New Counsellor form if there has been a change.

All via e-mail connected branches will receive messages and deadline reminders from IEEE Headquarters

'Use e-mail - no more glue on your tongue'

Region 8 Student Representative: Mr. Roman Mittendorfer, Muenzgrabenstr. 244/2/14 8010 Graz, Austria. Tel: +43 316 873 7274; Fax: +43 316 873 7266; E-mail: r.mittendorfer@ieee.org, or mittendorfer@ftug.dnet.tu-graz.ac.at

### Sweden

By Dr. Anders Derneryd

#### Fellow Award

The Sweden Section congratulates Andreas Kelén Västärds, who has been elected to the IEEE Fellow Grade as from January 1st 1994; for 'Leadership in the application of partial discharge analysis to machine insulation'.

#### VIC '94

Four hundred and fifty papers will be presented in seven parallel sessions (300 oral presentations and 150 poster presentations) at the 44th IEEE Vehicular and Technology Conference '94 to be held in Stockholm from June 7th to 11th. This is the first time that this conference has been held outside North America. The theme of the conference is 'Creating Tomorrow's Mobile Systems'. For an advance Programme and registration form please send your address by mail to IEEE VTC 1994 Congress office, Ericsson Radio Systems AB, S-164 80 Stockholm, Sweden or by FAX: to +46 8 752 6618

#### New Chapters

The formation of two additional Chapters is under consideration. Carl-Gunne Falthammar, tel 08 790 7685, is serving as the organiser of a Nuclear & Plasma Science Chapter and Robert Tjärnström, tel 08 719 9828, at Ericsson Components as the Organiser of a Circuit and Systems Chapter A petition, signed by at least 12 members of the pertinent Society is needed Each Chapter is required to hold four meetings a year Members supporting this should contact the Organisers

#### Membership Development

Help a colleague, Help the Institute, Help yourself. Take part in the IEEE 'Member-Get-A-Member' Programme in 1994; a programme to bring in new members. For every member you recruit,

you will receive a small gift - the IEEE way of expressing thanks for your efforts. Just have your recruit fill in an application and complete the 'Member Recruiter' box yourself.

Section Chairman: Piotr Starski, Chalmers University of Technology, Division of Microwave Technology, S-412 96 Göteborg, Sweden Tel: 031 772 1734; Fax: 031 164513. e-mail: piotr@nt.chalmers.se

### Denmark.

by Prof. J. Bach Andersen

1. The section would like to draw attention to the following event organized jointly with The Engineering Society:

Wednesday 2 March 1994 , 19.30 Dansk Ingenioerforening, DIF Vester Farimagsgade 29, Copenhagen

PowerPC: Unix, OS/2, MAC, and NT united by an IC -

The  $\mu$ -processor market has seen many new processor designs in recent years such as SPARC, MC68040, Alpha and Pentium. One new such processor is the PowerPC. Developed jointly by IBM, Motorola, and Apple, PowerPC has some promising perspectives.

But PowerPC is more than just a competitor to e.g. Pentium. For IBM, the PowerPC is considered a strategic technology. This seminar will address hardware aspects as well as the software supporting PowerPC. Finally, the applications of PowerPC will be addressed.

Owe Mellberg, Motorola AB SPS, will address design goals, architecture and implementation of the PowerPC. PowerPC is designed using an advanced 0,65  $\mu m$  CMOS technology. The technology aspects of the MPC601 and MPC603 as well as future developments will be described.

Claus Rosengaard, IBM Nordic, will discuss the PowerOpen Association. PowerOpen association is meant to promote the PowerPC and build standards around it for further use as a microprocessor and as an embedded controller in, for example, consumer products.

Finally, Kaj Christiansen, IBM, will look at the first PowerPC based product from a hardware, as well as from a software development point of view.

2. In order that you will be included in the database for future mailings, the Denmark Section urges all members with access to email to send a small message to: sec.denmark@ieee.org

Section Chairman: Prof. J.B.Andersen, Aalborg University, Fr.Bajers Vej 7A, DK> 9220 Aalborg, Denmark. Tel: +45 98 15 85 22; Fax:+45 98 15 67 40

## Obituary

Hans W. Pötzl died at the age of 64; unfortunately the notice of his IEEE Fellowship for contributions in education and research in the field of semiconductor physics and device modelling, came three weeks after his death.

He dedicated his life to research and teaching at the University of Technology Vienna, Austria. He became professor of physical electronics in 1966 and since then all electrical engineering students in Vienna started their profession with a sound physical knowledge. His research in microwave effects in semiconductors and on models and simulation of semiconductor devices and technology brought interactions in the USA and Europe, and initiated successful groups.

In honour of his scientific and educational achievements he received several awards, international committee memberships and became an elected member of the Austrian Academy of Sciences. In addition to physics and electronics he taught his students and younger co-workers humanism by the example of his own noble but unobtrusive behaviour.

Franz Siefert





S.R.S.'94

### presents

the most up-to-date technological developments in:

Aadio, Video, Data Storage, Maltimedia & Recording.

University of Keele, Keele, Staffordshire, England 5 - 7 April 1994 For further details please contact:

Miss Louise J. Bousfield, SRS '94 Secretariat,

IEE Conference Services
Savoy Place, London WC2R OBL UK.

Tel: +44 71 344 5477. Fax: +44 71 497 3633

Telex: 261776 IEE LDN G

### Recognised Educational Programmes

By Mr. F. Staffanson

In order that IEEE Membership Applications can be properly assessed, it is essential that potential members should show that they have achieved a satisfactory level of university education; for this purpose the Institute maintains a list of approved university courses (programmes) which should enable students to achieve the required standard. The body responsible for ensuring that the content of these courses meets the educational standards of the IEEE is the 'Recognised Educational Programmes Committee', a sub-committee of the 'Admission and Advancement Committee'.

This process is particularly difficult in Region 8, where there is a wide variety of educational systems. It is not to be expected that an IEEE Committee based in the USA would be able to assess fairly the standard of education achieved by applicants for membership from Region 8. Accordingly, in 1994 the Programme Committee will be circulating Region 8 Sections with a recommendation that they should appoint a Section officer who, with advisers if necessary, would be responsible for assessing the course programmes of universities within his Section. Guidelines will be provided and it is hoped that each section will be able to enlist at least one representative from academia and another from industry; programmes on the FEANI list, for example are routinely accepted as satisfactory by the IEEE

In order to minimise the effort asked of Sections, in each Region a Regional REP coordinator will be appointed. For Region 8 the coordinator is Professor Dr.-Ing. Kurt Richter, I.G.T.E., Technical Universitaet Graz, Kopernikusgasse 24, A-8010 Graz, Austria.

Tel: +43 316 873 7250. Fax: +43 316 831 946. E-mail richter@igte.tu-graz.ac.at Prof. Richter is a past Director of Region 8.

Forrest Staffanson (Chairman: Admissions and Advancement Committee)

# The Computer Society: Emerging Democracies

By Mr. R.C.Winton

The object of the Emerging Democracies project is to provide Society publications and other services to selected organisations which have agreed to make the material available to engineers and scientists, who because of their difficult economic conditions, are not in a position to pay for membership of the Society at its normal rates. The Chairmen of the Sections in which the organisations are situated have been notified.

There are three principal parts to the project:

- 1. The provision of "instant libraries" of some 200 books published by the Society. In addition each instant library will be accompanied by a free subscription to each of the Society's fifteen periodicals.
- 2. The Society has under consideration, discounted or free registration fees for the Society's conferences. Also under consideration is the provision, in conjunction with local universities, of tutorials on computer technology.
- 3. The Society is exploring the possibility that it could provide finished film of its periodicals, to an organisation in each country, authorised to print copies for distribution to individual professionals who would pay for them, at or near cost, in their local currency.

Information from the Computer Society







#### ORGANISING COMMITTEE

Chairman: Prof. C. de Jong (ICIT)
The Netherlands

Vice chairman: Prof. J.C. Arnbak (ICCC/IEEE)
Delft University of Technology,
The Netherlands

Secretary: H. Kraaijenbrink PTT Telecom, The Hague, The Netherlands

Treasurer: J. Noordanus (IEEE) The Netherlands

Publicity: Dr. E. Fredriksson (ICCC) IOS, Amsterdam, The Netherlands

Member: Prof. R. Prasad Chairman, IEEE Joint Chapter Benelux Delft University of Technology, The Netherlands

Local co-ordinator: N. Kay
Delft University of Technology,
The Netherlands

#### CORRESPONDING MEMBERS:

Prof. O. Spaniol (IFIP liaison) RWTH Aachen, Germany

Prof. A.H. Aghvami (PIMRC founder) King's College London, UK

#### AREA CO-ORDINATORS

#### American continent

Prof. K. Pablavan Electrical Engineering Department Worcester Polytechnic Institute Worcester, MA 01609, USA

#### Pacific Asia

Dr. S. Kato NTT Radio Communication System Laboratory, 1-2356, Take, Yokosuke, 238-03, Japan

#### Europe, Middle East & Africa

Prof. R. Prasad Delft University of Technology P.O. Box 5031, 2600 GA Delft, The Netherlands

#### SPONSORED BY:

The Benelux Joint Chapter on Vehicular Technology and Communications Society of the Institute of Electrical and Electronics Engineers (IEEE)

The International Council for Computer Communication (ICCC)

PTT Telecom Netherlands

#### Two conferences in one!

Announcement and Second Call for Papers
Fifth IEEE International Symposium on

# PERSONAL, INDOOR AND MOBILE RADIO COMMUNICATIONS (PIMRC'94)

jointly with the ICCC Regional Meeting on

### WIRELESS COMPUTER NETWORKS (WCN)

The Hague, The Netherlands, September 19-23, 1994

Prospective authors are cordially invited to submit papers on topics of interest including, but not limited to the following areas:

\* Protocols for wireless networks (IEEE) \* Modulation, coding and multiple access (IEEE) \* Frequency planning and spectrum efficiency (IEEE) \* Wireless LAN and PABX technologies (IEEE) \* Cellular design principles (IEEE) \* Dynamic channel allocation and transmit-power control (IEEE) \* VLSI applications (IEEE) \* Integration with radio location and navigation systems (IEEE) \* Radio propagation and channel modelling (IEEE) \* Mobile multimedia services (IEEE/ICCC) \* Role of satellites (IEEE/ICCC) \* Standardisation, type approval and international portability of customer equipment (IEEE/ICCC) \* Computer applications appropriate to wireless technology (IEEE/ICCC) \* Network interconnectivity aspects (IEEE/ICCC) \* Integration or separation of mobile voice and data? (IEEE/ICCC) \* Integration with (broadband) ISDN (IEEE/ICCC) \* Evolution towards Universal Personal Telecommunications(IEEE/ICCC) \* Wireless distributed computing (IEEE/ICCC) \* Convergence with broadcasting: Radio Data Systems (RDS), teletext, etc. (IEEE/ICCC) \* Business needs for wireless networks (ICCC) \* Charging trends for public mobile services (ICCC) \* Systems integration of mobile computer applications (ICCC) \* Role of radio networks in Central and Eastern Europe (ICCC) \* Regulation: European and national policies and their application of ONP (ICCC) \* Social and economic implications of wireless technologies (ICCC) \* Security and trans-border data flow aspects (ICCC).

Three hard copies of the full manuscript, not exceeding 3000 words, should be received by the PIMRC'94 or the WCN Technical Program Committee as given below. The first page of the manuscript should include title of the paper, author's name, telephone and fax number, E-Mail return address and an abstract of about 100 words. Authors should also clearly indicate on the first page whether the paper is considered suitable for IEEE PIMRC'94, ICCC WCN, or both conferences. (Note the different profiles of the topics of the two conferences indicated above!)

There will be several Student Awards.

For further information, please contact the Technical Programme Committee Chair persons or Area Co-ordinators listed, or send an E-Mail inquiry to: Wireless@ET.TUDelft.nl.

Deadline for paper submission April 30, 1994. Notification sent to authors by June 15, 1994 Deadline for camera-ready manuscripts July 15, 1994

# Technical Program Committee IEEE PIMRC'94

Chairman: Prof.dr. R. Prasad
Delft University of Technology
Department of Electrical Engineering
Telecommunications and Traffic-Control
Systems Group, P.O. Box 5031
2600 GA Delft, The Netherlands

# Technical Program Committee ICCC WCN

Chairman: Prof.dr. J.C. Arnbak
Delft University of Technology
Department of Electrical Engineering
Telecommunications and Traffic-Control
Systems Group, P.O. Box 5031
2600 GA Delft, The Netherlands

If your area of residence is not Europe, Middel East or Africa, please also send one courtesy copy to the appropriate area co-ordinator.

### 1994 Region 8 Distinctions - By Professor E. Folke Bolinder

#### Fellows

#### South Africa

#### Johannes A.G.Malherbe

For contributions to the development of education in electromagnetics, and to microwave design techniques.

#### Austria

#### Hermann Kopetz

For contributions to the field of fault-tolerant real-time local-area distributed systems

#### Habs W. Poetzl

For contributions to education and research in the field of semiconductors physics and device modelling

#### Croatia

#### Vladimir M. Muljevic

For leadership in cybernetics and control engineering education, and in the history of technology.

#### Finland

#### Antti V.A.Räisänenä

For contributions to and leadership in millilmeterwave receiver technology

#### Germany

#### Kurt J. Antreich.

For contributions to computer-aided tolerance design of electronic circuits and computer-aided layout design of integrated circuits

#### Jens P. Blauert

For contributions to binaural technology

#### Dusan Povh

For contributions to the analysis of ac and dc systems and control of high-voltage dc converters

#### Petewr H. Russer

For fundamental contributions to noise analysis and low-noise optimisation of linear electronic circuits with general topology

#### Werner Wiesbeck

For contributions to wide-band polarimetric radar metrology.

#### Hungary

#### Tibor Berceli

For contributions in the fields of microwave photonics and nonlinear microwave circuits

#### Sándor Csibiá

For contributions to Markovian methods in multiaccess communications and to engineering education.

#### Israel

#### Uri Shaked

For contributions to Shannon theory as applied to the evaluation of the reliability of communication channels

#### Mati Max

For contributions to sensor array signal processing and model selection

#### **Ehud Weinstein**

For contributions to the application of statistical methods to signal processing and time delay estimation

#### Central & South Italy

#### Giorgio M. Picci

For contributions to the modelling and realisation of stochastic systems

#### North Italy

#### Alberto Pigini

For leadership in high-voltage research with special reference to external insulation, diagnosis and testing of power apparatus.

#### Vittorio Rizzuoli

For contributions to the simulation and design of nonlinear microwave integrated circuts

#### Romania

#### Mihai D. Draganescu

For contributions to the field of electron devices and for leadership in developing electron device education in Romania.

#### Petre Stoica

For contributions to statistical signal processing and system identification.

#### Sweden

#### Andreas Kelen

For leadership om the application of partial discharge analysis to machine insulation

#### Switzerland

#### Konrad Reichert

For contributions to the analysis of electromatnetic fields, and the planning and operation of power systems by means of numerical methods.

# United Kingdom and Republic of Ireland

#### Colin S. Aitchison

For contributions to the design of microwave active circuits.

#### Anthony C. Davies

For contributions to the theory and analysis of active netowrks.

#### Gerard T. Wrixon

For contributions to millimeter-wave and photovoltaic systems technology, and for leadership in education and academic research.

### No Section Assignment (Oman)

#### Asser A. Zaky

For leadership in electrical engineering education and contributions to the understanding of conduction and breakdown in dielectric liquids.

### Field Awards

# IEEE Award in International Communication

Stephen Robin Temple (Non-Member); Director of Technical Affairs, Telecommunications and Posts Division Dept of Trade & Industry, England.

For contributions to the development and furtherance of worldwide telecommunication standards

#### IEEE Judith A. Resnik Award.

Johannes Dietrich (Non-Member); Chief Engineer and Research Project Leader for Mechatronics Research, German Aerospace Research Establishment, Germany

For the development of a successful highperformance, rugged, multi-sensor, miniaturised robotic gripper for use in the outer space environment

#### Medals

#### IEEE Lamme Medal

Michel E. Poloujadoff (FIEEE); Professor, Universite Pierre et Marie Curie, Paris France

For advancements in the theory and application of high-power electromagnetic apparatus, including transformers and electronically controlled machine drives

# IEEE Medal for Engineering Excellence

Heinrich Sussner (MIEEE); Executive Consultant to the Director of Marketing, IBM World Trade, Paris France.

For engineering leadership in the demonstration of one gigabit per square inch storage density on a digital magnetic rigid disk.

# IEEE Richard W. Hamming Medal

Gottfried Ungerboeck (FIEEE); IBM Fellow, IBM Zurich Research Laboratory, Switzerland.

For the development and application of trellis modulation to digital communications.

## Honorary Memberships

Michel Carpentier (Non-member); Director General, Directorate General XIII, Telecommunications, EEC, Belgium.

For leadership in pioneering the R&D and policy initiatives at the European Community level in the areas of environment and information and communication technologies

Ralph E. Gomory (Non-member); President, Alfred P. Sloan Foundation New York, NY

For outstanding leadership of the research activities of IBM, and the resulting technological benefits to IBM, and the computer and semiconductor industries.

## Turkey

By Dr. Mehmet A. Tan



On behalf of the executive committee of Turkey section, I would like to take this opportunity to express our greetings and best wishes to all IEEE members in Turkey and colleagues in Region 8 for the new year.

The executive committee was elected in December 1993 and as you know, will serve for the term until December 1995. We are thankful to the past executive committee members, who have served since January

1992, for their great work in developing the membership, the chapters, and chapter activities. The section vice-president is Dr. Bulent Orencik and the secretary treasurer is Dr. Omer Morgul. The committee members are Dr. Ayhan Altintas, who is the past chairman, Dr. Tuncay Birand, Dr. Muhittin Gokmen and Dr. Siddik Yarman.

We were honoured by the visit of the IEEE President, Dr. Martha Sloan on November 22 to Istanbul and Ankara. Her visit gave us a great chance to discuss some issues regarding our section and to learn from her opinions and experience.

The forthcoming events, which are supported or partially supported by IEEE Turkey Section are the following.

- MELECON'94 April 12-14, Antalya, (Contact, Yildirim Uctug, Middle East Technical University, Ankara)
- 2nd National Signal, Image, and Speech Processing Conference (Turkey) will be held in April 8-9, 1994 in the Aegean resort town of Gokova, Mugla, Turkey. A plenary talk will be given in English by Prof. Jan Biemond, Delft University of Technology, on HDTV standardization in Europe and the U.S.A. About 70 papers will be presented.

In the near future, among the initiatives I am planning are the following::

- - to establish new chapters and joint chapters in Turkey Section. One of them is already launched: The Communications Society Chapter. To encourage an increase in chapter activities. I am planning to get together with the chapter officers more often, and exchange ideas.
- - to form a members alias for e-mail. There is already a list-server, as you may know, i.e. IEEETR@TRITU.BIT-NET. However, I believe the communication and feedback between the members and the executive committee must be stronger to serve you better. So, please be informed and try to get an e-mail connection to Internet or BITNET.

Please feel free to contact me or any of our committee members for further information. I shall be pleased to hear new ideas about our operation, and to see new faces participating in IEEE section and Chapter activities. Best regards to all.

Section Chairman: Dr. Mehmet A. Tan, Bilkent University, Dept. Elec. Eng, Bilkent 06533, Ankara, Turkey, Phone: +90-312-266-4040 Ext.1308, Fax: +90-312-266-4126, E-mail: m.tan@ieee.org or sec.turkey@ieee.org

# Benelux Joint Vehicular Technology/ Communications Society

By Professor Dr. Ramjee Prasad

This joint Chapter in the Benelux Section held its first Executive Committee Election; it was followed by a Workshop on Mobile Radio Communications at the Faculty of Electrical Engineering of Delft University of Technology, The Netherlands. The Chairman of the organising committee was A. Kegel. The following were elected:

Chairman:	R. Prasad	TU-Delft
		The Netherlands
Vice-chairman	A.A.Laloux	UCL-Louvain,
		Belgium
Secretary	P.G.M. de Bot	Philips-Eindhoven
		The Netherlands
Treasurer	K.Smit	Ericsson-Enschede
		The Netherlands
Secretary/Treasurer	H.S.Misser	PTT-Leidschendam
		The Netherlands
Programme Chair	L. Vandendorp e	UCL-Louvain
		Belgium
Publicity Chair	M.Moeneclaey	RU-Gent
		Belgium
Membership Chair	P.G.M.Smulders	TU-Eindhoven
		The Netherlands
Arrangements Chair.	M. Durvaux	Alcatel-Charleroi
		Belgium
Students Relations Chair	G.J.M.Janssen	TU-Delft
		The Netherlands
Awards/Nominations	J.R.Farserotu	SHAPE-Den Haag
		The Netherlands
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After the election, the workshop was held with the following presentations::

- 1. 'Introductory Speech', By Professor R. Prasad
- 2. 'An Overview of Mobile Radio Communications' by Professor J.C. Arnbak., TU-Delft, The Netherlands
- 'Dynamic Channel Allocation in Cellular DS-CDMA Systems' by Professor M. El Zarki, University of Pennsylvania USA/TU Delft The Netherlands
- 4. 'Non linear Approach for a pi/4 DQPSK Receiver' by Mr. R. Cassiers, Alcatel Bell, Charleroi, Belgium
- 5. 'PCS- The Cordless Solution', by Mr. G. Klein Wolterink, Ericsson, Enschede, The Netherlands.

The workshop was well attended by 80 people from universities, industries and research laboratories. IEEE membership information was displayed during the workshop.

The first symposium on Communications and Vehicular Technology in the Benelux was held on 17-18th October 1993 at the Delft University of Technology.

Chapter Chairman: Dr. R.Prasad, Delft University of Technology, The Netherlands. Tel:+31 15 78 1347/6193. Fax+31 15 78 1774



By Aarno Lehtola and Jari Jokiniemi

#### ANNUAL MEETING

The Section annual meeting was held on Wednesday, December 15, at Nokia Telecommunications. The Executive Committee was elected as follows: Chairman Aarno Lehtola (tel. (90) 456 6032, e-mail aarno.lehtola@vtt.fi), Past Chairman Markku Oksanen (tel. (90) 451 4490), Vice Chairman Mauri Inha (tel. (931) 2830 111), Treasurer Iiro Hartimo (tel. (90) 451 2454, e-mail iiro.hartimo@hut.fi), and Secretary Jari Jokiniemi (tel. (90) 456 6009, e-mail jari.jokiniemi@vtt.fi). You may also contact section officers via e-mail sec.finland@ieee.org. After the meeting formalities, the manager, Jaakko Riihinen, of Nokia Cellular Systems gave an interesting presentation on the current systems development projects concerning Nokia's new GSM telephone switches.

#### NEW OFFICERS FOR SP/CAS CHAPTER

The annual meeting was held on Monday, December 17. New Chapter officers were elected. The New Chairman is Moncef Gabbouj (moncef@cs.tut.fi) and the Secretary is Kari Saarinen (saari@cs.tut.fi). Both are from the Tampere University of Technology. Moncef Gabbouj is also the Chairman of the IEEE Circuits and Systems Society Technical Committee on Digital Signal Processing.

#### PUBLICATIONS AVAILABLE

MTT/AP Chapter of Finland co-organised an International Seminar on the Electrodynamics of Chiral and Bianisotropic Media. This workshop, "Bianisotropics'93", was held in the city of Gomel, in southeastern Belarus, on 12--14 October 1993; around 30 scientists and engineers from five countries participated. For more information, please contact Ari Sihvola, HUT, Electromagnetics Laboratory, 02150 Espoo, Finland. Fax (358)-0-4512261, phone (358)-0-4512261, e-mail ari.sihvola@hut.fi.

The Section and the Computer Chapter jointly organized with the national societies FAIS and EIS and the University of Tampere, the Symposium on Conceptual Modelling and Object-Oriented Programming on Friday, November 5, in Tampere. Eighteen presentations were given on methodologies, modelling tools, programming languages, applications and future directions; nintyseven other participants took part in the Symposium. All presentations (15 in English) have been published in a book and there are still some copies available from the Section Secretary Jari Jokiniemi (see address above) with the member price 50 FIM.

#### NEW OFFICERS OF OULU STUDENT BRANCH

IEEE Student Branch Oulu had its annual election meeting 14th December 1993. New board for 1994 was chosen and SB activities were discussed and planned. The new board chairman is Juha Kokkonen. SB officers can be contacted best by sending email to ieeesb@ee.oulu.fi

#### NEW FELLOW

We warmly congratulate Professor Antti V. A. Räisänen on the award of his IEEE Fellow Grade for his contribution to and leadership in millimeter-wave receiver technology.

#### CALL FOR PAPERS

The Section and The Computer Chapter together with the Finnish Artificial Intelligence Society (FAIS), Åbo Akademi, University of Turku and the Turku School of Economics and Business Administration are organizing a Conference on Artificial Intelligence Research in Finland, STeP-94. It will take place on 29-31 August, 1994, in Turku Technology Centre. Topics will include: approximate reasoning, expert systems, fuzzy systems, natural language processing, machine learning, neural networks, object-oriented programming, pattern recognition and robotics. Papers with other AI related topics are also welcome. Abstracts (max. 500 words) are due by February 15, 1994. For more information, please contact, Sinikka Säteri, Turku School of Economics and Business Administration, FIN-20521 Turku, Finland, tel: intl+358-21-63 83 513, fax: intl+358-21-63 83 511, email: ssateri@abo.fi.

Chapter Chairman: Mr. Arno Lehtola, Nuottakunnantie, 3B9 SF-02230, Espoo Finland. Tel: +358 0 456 6032. Fax: +358 0 456 6027. E-mail Lehtola@tik.vtt.fi

# Egypt - Alexandria Sub Section

By Prof. Dr. Said E. El-Khamy

The Alexandria Subsection has finally been established and is already active. It serves members in Alexandria and North



Delta, who represent about 40% of the IEEE members in Egypt. This amounts to 110 members, including 42 students, 21 graduate students, 2 affiliates 33 members and 12 senior members. Eleven of the Senior Members are professors at the Faculty of Engineering in Alexandria University.

IEEE activities in Alexandria started long ago. The late IEEE Life Fellow, Prof. Dr. Abdel-Samuel Mostafa. who died recently was a pioneer of Electrical & Electronic Engineering both in Alexandria and in all Egypt.

The first meeting of the Subsection was held on 1st April 1993; the following were elected:

Chairman: Prof. Dr. Said E.El-Khamy Vice-chairman: Prof. Dr. Adel Mohamadein Secretary/Treasurer: Dr. Khamis El-Shennawy Professional Activities: Prof. Dr. Hassan N. Khairalla

Student Activities: Dr. Essam A. Sourour Newsletter Editor: Dr. Roshdy A Abderrassoul

The Subsection activities have included three lectures:

- 'Micro electromechanical Devices'; by Dr. Tawfik Namour. The attendance was thirty three.
- 'New Trends in Speech Synthesis and Recognition'; by Dr. Onsy A. Abdel-Alim, Attendance twenty eight
- 'New Trends in Satellite Communication'; by Dr. Hassan El-Kamchouchi. Attendance thirty five.

Our forthcoming programme includes Neural Networks, Spread Spectrum Techniques, and Artificial Intelligence.

Subsection Chairman: Prof.Dr.Said E.El-Khamy, Department of Electrical Engineering Alexandria University, Alexandria 21544., Egypt. Fax: (203) 597 1852

# Optical Communication ECOC '93

By Professor R.P.Salathé

This was the Nineteenth in this series of Optical Communications conferences; it was the result of wide cooperation between many Societies and attracted some six hundred delegates from thirty two countries. Thirtysix companies were represented in the associated exhibition.

Erbium doped fibre amplifiers and Wavelength Division Multiplexing technology will profoundly affect future fibre transmission systems. Tingye Li from At&T Bell Laboratories, NJ, USA discussed 'The Next Generation of Lightwave Transmission Systems' and the impact of such technology on the design, operation and economics of long haul transmission systems. Ebrium doped devices will be installed as repeaters in the new generation of undersea cable transmission systems. A first transoceanic amplified lightwave transmission system is planned for installation and service in 1995. simulations and laboratory experiments indicate that multigigabit per second non-return to zero signals can be transmitted in optimised future systems over transoceanic distances of 7-9000 km. However, Tingye Li expects a much larger impact of these technologies for the long haul transmission network. Dispersion compensating techniques will allow 'bandwidthmining' to exploit very cost effectively the inherent bandwidth of the installed long haul network. Here, enhancements of 10-50 times over current capacity are projected. Technical solutions for achieving this goal were fully discussed in subsequent sessions of the conference.

D.N.Payne from the University of Southampton, England, spoke of 'unleashing the Full Capacity of the Installed Fibre Base'. Allied subjects for discussion were recent developments in fibre amplifiers at 1.3  $\mu m$ , in dispersion compensation techniques, and the use of dispersion compensation using midpoint spectral inversion, multicladding fibre structures and optical ring resonators.

High capacity and ultra high speed transmission constituted another subject of considerable interest. N.Takochio et al. and S.MKawanishi et al. from NTT Transmission laboratories in Yokosuka, Japan reported on 10x10 Gbit/sec and 16x6.3 Gbit/s transmission experiments over 300km and 100 km. The latter group of authors had achieved a completely time-division multiplexed 100 Gbit/s optical transmission. A.Gnauck from AT&T Bell Laboratories reported results from model calculations indicating that it should be possible to increase capacity beyond 200Tbit/s-km without solitons by compensating linear and nonlinear distortions using optical phase conjugation.

For future large scale subscriber networks, S.Nagasawa et al. from the NTT R&D Centre in Ibaraki, Japan have developed push-on type single mode fibre ribbon connectors using plastic ferrules with an average insertion loss for a 16 fibre ribbon of 0.25 db without index matching. The self aligned optical flip chip packaging opto-electronic components is a prospective technology for lowering the costs of packaging opto-electronic components - W. Hunziker et al from ETH Zurich. A.Oishi et al. from Hitachi Central Research Laboratory, Tokyo, reported on a 10 element laser diode array at a wavelength of 1.3 μm with an efficiency of 0.4 W/A and a threshold current of 1.8mA

The future switching requirements for telecommunication networks and the challenges for photonics were reviewed by L.M.Burnett & D.W.Smith from British Telecom, Ipswich, England. Photonic technology can be seen as a powerful tool to remove excess network complexity. A combined space and wavelength switch matrix based on tunable, resonant DBR filters was presented by M. Oeeberg et al. from the Swedish Institute of Microelectronics and Ericsson Telecom AB, Stockholm. A net chip gain of 4 db was measured at 1.5 micrometre for this switch, based on wavelength routing and the use of fibre delay lines has been developed by RACE 2039/ATMOS consortium. D. Chiaroni et al from Alcatel CIT in Nozay France, reported that ATM-like cell switching at 2.5 Gbit/s with error free operation was achieved with this switching matrix.

The scientific exhibition focussed on research results and demonstrations from industrial and academic research laboratories.

The Proceedings of ECOC '93 include papers, invited papers and post-deadline papers. Swiss Electrotechnical Association, PO Box CH-8034 Zurich, Switzerland. Tel: +41 1 384 9111. Fax: +41 1422 1426

The next ECOC will be in Florence, Italy, September 26-30. Contact: Franco Bertoldi, Istituto Internazionale delle Communicazioni, Via Pertinace Villa Piaggio, I-16125 Genova, Italy. Tel: +39 10 272 2383. Fax: +39 10 272 2183

# Solid State Circuits ESSCIRC '93

The conference was held in Sevilla and was organised by the Department of Analogue Design of the Spanish Centro Nacional de Microelectronica. Prof. J.H.Huijsing and Prof. G. Van der Horn received the ESSCIRC '92 Best Paper Award. Some 70 papers were presented; with a significant increase in participants from USA, Japan and Korea. The majority of the papers presented dealt with Analogue and Mixed designs.



The four NEAR panellists: Nichael Ohleta, Mani Soma, Keith Baker, Steve Dollens

On Friday there was a Workshop sponsored by the Network of European Analogue Research (NEAR). The subject was 'Testing and Testability of Mixed-signal Integrated Circuits. The workshop was followed by a general discussion.

The next ESSCIRC will take place in Ulm, Germany. Contact: Prof. Hans Pfleiderer, Fax:+49 731 502 6222.

Juan Ramos-Martos - CNM Sevilla

## Germany

By Prof. Dr. E. Handschin (IEEE Publications Officer)

For his commitment to the IEEE Student Branch Munich, Prof.Dr.-Ing. W.Entenmann was honoured with the IEEE Outstanding Branch Counsellor and Advisor Award. The ceremony was organised by Mr. B. Wimmer, the IEEE Student Branch Chairman, together with Prof.Dr.-Ing. W.Hahn, the Student Activities Coordinator. During the award ceremony Dr. H.L.Dienel, German Museum Munich, gave a talk on 'The Bavarian path into the technical age - 125 years Technical University Munich' and Prof Dr. R.Saal, the Senior Past Chairman of the German Section, reviewed the 25 year history of the chair for network theory and circuit design.

## Poland

The second international specialist workshop on 'Non-linear Dynamics of Electronic Systems', NDES '94, will take place on 29-30th July 1994 at Krakov, Poland

The workshop is being organised by the Dept. of Elect.Eng. of the University of Mining and Metallurgy at Krakov, with the support of our Circuits and Systems Chapter, the IEEE technical committee on Nonlinear Circuits and Systems, and the Polish Society of Theoretical and Applied Elect. Eng. It follows the successful workshop held in Dresden in 1993, which was organised by King's College London and the Technical University of Dresden, with the support of the UKRI Section and the Germany Section

The official language of the Workshop will be English; papers are invited on theoretical and practical issues in non-linear electronic devices, circuits and systems, and possible new applications. Why not take your 1994 vacation in Poland, visit the historic town of Krakow, once the capital of Poland, and attend NDES '94 while you are there.

Dr. Maciej Ogorzalek, Department of Electrical Engineering, University of Mining and Metallurgy, asl Mickeewiczs 30, 30-059 Krakow, Poland. e-mail: macieej@uci.agh.edu.pl. Fax: +48 12 34 48 25

Information is also available from Professor A.C.Davies at King's College London. E-mail tonydavies@bay.cc.kcl.ac.uk

# U.K.R.I.

By Mr. Terry H. Oxley

Plans for 1994 include a series of lectures and a number of workshop/one-day meetings. Attention is drawn to the following activities of broad international interest:

Colloquiun on Selected European papers from the 1994 MTT-S international Microwave Symposium & MTT-S/ED-S Microwave and MM Wave Monooithic Circuit Symposium, San Diego USA, is being planned for the Aujtumn of 1994.

Contact: The UKRI MTT/ED/AP Chapter chairman (details in the adjacent column)

The 2nd European Chapter Workshop on 'CAE, Modelling and Measurement Verification', organised by the UKRI Chapter, is being planned for 24th October 1994 at the Wembley Conference Centre, London; in cooperation with Microwaves 1994.

Contact: TPC Chairman - Professor J.A.C.Steqart, Department of Electrical & Electronic Engineering, The Queen's University of Belfast, Stranmills Road, Belfast BT9 5AH. Tel: 0232 245133, Fax: 0232 867023

EDMO '94. The Second Workshop on 'High Performance Electron Devices', jointly organised by King's College London and the UKRI Chapter, and cooperatively sponsored by the IEEE Electron Devices Society, will be held on Monday 14th

November 1994 at King's College Strand London. Contact: Dr. Ali A Rezazadeh, Department of Electronic & Electrical Engineering, King's College, Strand, London WC2R 2LS. Chapter Chairman: Mr. Terry Oxley, 'Tremont', Back Lane, Halam, Southwell, Newark, Notts NG22 8AG, England. Tel: +44 636 815510. Fax: +44 636 815865

# IEEE Spectrum

By Dr. Colin C.M.Maunder

Readers of IEEE Spectrum will be aware that it regularly wins awards for its coverage of electrical and electronic topics; the 1993 National Magazine Award for its report on 'Seeking Nuclear Safeguards' is but one example.

To assist the magazine's staff in maintaining these high standards and to ensure that its content meets the needs of the IEEE membership, Spectrum has an Editorial Advisory Board whose members are drawn from all parts of the Institute. Board members meet regularly and are often consulted during the development of special issues or particular articles.

I was asked to join Spectrum's Editorial Advisory Board this year and am one of the small number of Board members resident outside North America. I therefore have an interest in ensuring that Spectrum continues to develop so as to meet the needs of the Institute as a whole and Region 8 in particular

Should you have any comments on IEEE Spectrum or suggestions for topics to be covered, I would therefore be very interested to hear from you and to pass on your views to the editorial staff. You may contact me at: Colin Maunder, BT Laboratories, Martlesham Heath, Ipswich IP5 7RE UK. Tel: +44 473 642706. Fax: +44 473 642459.

E-mail c.maunder@ieee.org

**ISIT '94** 



**ISIT '94** 

# 1994 International Symposium on Information Theory

27th June - 1st July 1994

# The Norwegian Institute of Technology Trondheim, Norway

Distributed information processing
Applications of information theory
Multi-user information theory
Cryptography and security
Detection & estimation
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Error-control coding

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Signal processing

Neural networks

Shannon theory

Data networks

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A social programme, accompanying persons programme and post conference tours will be offered

I S I T '94 S E V U Congress Dept The Norwegian Institute of Technology N-7034 Trondheim, Norway Phone: 47 73 59 52 54 Fax: 47 73 59 51 50 E-mail: isit@sevu.unit.no



IEEE/VTS 44th Vehicular Technology Conference

Stockholm, June 7-10, 1994

The IEEE Vehicular Technology Conference is held annually and is the leading scientific conference in the area of mobile communications.

VTC 1994 is sponsored by IEEE Vehicular Technology Society, IEEE Swedish Section and the Swedish Society of Electrical Engineers.

VTC 1994 will have 7 parallel sessions during three days. There will also be an extensive Poster session. More than 400 papers will be presented within i.a the areas.

Antennas
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Packet Access

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System Capacity
Wireless Data Systems
Road Transport Informatics
Vehicle Electronics
Rail Transport Electronics

For further information contact: Stockholm Convention Bureau, Box 6911, S-102 39 STOCKHOLM, Sweden

tel +46 8 736 15 00 fax +46 8 34 84 41 Davos, Switzerland

26-29 Sept. 1994

#### MNE '94 Micro and Nano Engineering

Region 8 Conference Record

P. Vettiger, IBM Res.Lab. Säumerstrasse 4, CH-8803 Rüschlikon, Switzerland Fax: +41 1 724 1789. E-mail: pv@zurich.ibm.com

Zurich, Switzerland

7-9 March 1995

# EMC Zurich '95 Electromagnetic Compatibility

Dr. Gabriel Meyer, ETH Zentrum - IKT, CH-8092 Zurich Switzerland. Tel: +411 632 27 90 Fax: +411 262 09 43. E-mail: gmeyer@nari.ikt.ethz.ch

Ksiaz, Poland

30-May: 2 June 1994

#### MIKON '94 10th Microwave Conference

Professor E. Sedek, Telecommunications Research Institute, 00-991 Warszawa, UL Poligonowa 30, Poland. Fax: 48-22 10 25 71

Stockholm, Sweden

7-10 June 1994

### Vehicular Technology 1994 Tomorrow's Mobile Systems

VTC 1994 Congress Office, Prof. Sven-Olof Ohrvik, Ericsson Radio Systems AB, S-164 80 Stockholm. Tel: +46 8 757 0405. Fax: +46 8 752 66 18

# ELECTRICAL & ELECTRONICS ENGINEERS' CALENDAR OF IEEE CONFERENCES IN EUROPE, MIDDLE-EAST & AFRICA. - FEBRUARY 1994

#### **MARCH 1994**

21-24. Warwick, UK. Int. Conf. on Control '94.

IEE Conference Services

#### **APRIL 1994**

05-07. Keele UK. Int. Conf. on Storage and Recording Systems - SRS '94. IEE Conference Services

11-14. Rabat, Morocco. 3rd Maghrebian Conf. on Software Engineering & Artificial Intelligence.

IEEE Computer Society, 1730 Massachusetts Ave, N.W.Washington DC 20036-1903, U.S.A., Fax: +1 202 728 0884

12-14. Antalya, Turkey. **MELECON'94** MELECON 94 c/o Dept of E.E., Middle East Technical University, Inonu Buluari, 06531 Ankara Turkey.

26-28. London, England. 7th Int. Conf. on Road Traffic Monitoring & Control IEE Conference Services

#### **MAY 1994**

16-19. Toulouse, France. IEEE Int. Conf. on Computer Languages.

IEEE Computer Society Conference Services, 1730 Massachusetts Av., N W, Washington DC 20036-1903, USA. Fax: +1 202 728 0884

30.05-02.06. London, England. ISCAS '94 IEEE Int. Symp. on Circuits & Systems

IEE Conference Services

#### **JUNE 1994**

07-10. Stockholm, Sweden. IEEE Vehicular Technology Conf.
Schefte, Ericsson, Sweden

27.6-01.07. Trondheim, Norway. ISIT'94 Int. Symp. on Information Theory
T.Maseng, SINTEF DELAB, N-7034, Trondheim, Norway

Region 8 Conference Coordinator: Dr. Jacob Baal-Schem, POBox 1205, Holon 58112, Israel. Fax: +972 3 641 0193

#### **JULY 1994**

19-21. Cambridge, England. 6th Int. Conf. on Electronic Engineering in Oceanography

IEE Conference Services.

#### **AUGUST 1994**

24-26. Glasgow, Scotland. 3rd Int. Conf. on Control Applications.

Prof. M. Grimble, Strathclyde Univ., 50 George St., Glasgow, Scotland

28.08-02.09. Amsterdam, Netherlands. CLEO EUROPE/EQEC - Electro-optics Europe & 5th European Quantum Electronics Convention.

#### **SEPTEMBER 1994**

05-07. Manchester, England. 9th Int. Conf. on Electromagnetic Compatibility IEE Conference Services

IEE Conference Services: Savoy Pace, Victoria Embankment, London WC2R 0BL, England. Fax: +44 71 240 7735