From the Regional Director

Publications you no longer need. We have conducted a survey of libraries in east Europe in order that we may advise those willing to assist, where their IEEE publications are most needed.

If you wish to donate your surplus IEEE publications please complete the reply form on page 9 and send it to me; you will receive the address of a library to which your journals should be sent. If you wish Region 8 to pay the cost of freight, I can arrange this if you advise me the amount.

Should your organisation be in a position to supply a number of publications regularly, why not consider a more permanent arrangement with an east European library?

President-elect: Only a small minority of Region 8 members voted in last year's election. Please use this year's ballot to exercise your choice for the 1995 President-elect from the three excellent candidates:

Charles Alexander, Vice President for Professional Activities; Don Bolle, Vice President for Technical Activities Wally Read, Vice-president for Standards

Assistance for east Europe members. It is pleasing to report good progress in Region 8 on a number of new developments. The voluntary contributions fund to help needy Sections in our Region, reached almost $5,000 in its first year, an equal sum will be provided by the Region 8 Treasury. We intend to continue asking for contributions from members when they renew their membership later this year. Some of the funds have already been committed to the sending of books and journals to Albania, to provide travel funds for the Ukraine Section, to assist in the setting up of a joint IEE/IEEE office in Budapest, and to launch the east Europe library project under which microfiche versions of selected IEEE Technical Society publications will be donated to libraries in about 10 Sections.

Electronic Mail. I have asked all Section Chairman to establish e-mail connections by the end of 1994. The potential benefits to Region 8 members are so great that I would like to encourage everyone to get connected, perhaps through your local university.

C.W. Turner - Director Region 8

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IEEE BRUSSELS OFFICE - OPERATIONAL PLAN - (As seen from the U.S.A)

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Institute of Electrical & Electronics Engineers
Regional Director: Prof. Charles Turner
The Poulsen Arc
Electrical Engineering Milestone Unveiled at Lyngby Radio
By Knud-V. Weisberg

During the recent Region 8 committee meeting in Hilleroed, north of Copenhagen an IEEE Electrical Engineering Milestone Plaque was unveiled in the hall of Lyngby Radio Station, a centre for overseas and local maritime services; its text reads:

"Valdemar Poulsen, a Danish engineer, in 1902 invented an arc converter as a generator of continuous-wave radio signals. Starting in 1904 Poulsen used the arc for experimental radio transmissions from Lyngby to various receiving sites in Denmark and Great Britain. Poulsen arc transmitters were used internationally until they were superseded by vacuum-tube equipment"

Poulsen also invented the telegraphone, a magnetic wire recorder for recording telephone messages; the precursor of the modern telephone answering machine. Poulsen took out patents which made Dudell's "singing arc" an effective high-frequency continuous wave generator: he caused the arc to burn in a hydrogen atmosphere and applied a magnetic field to blow the arc away from the gap. The available detectors were ineffective for his continuous waves, and he therefore devised an asynchronous mechanical detector to produce an audible signal.

Region 8 Director Professor Charles Turner, unveiling the Valdemar Poulsen memorial wall at Lyngby Radio

With the major problems now out of the way Poulsen arc transmitters were marketed by several companies until 1925. In 1914 Poulsen's laboratory at Lyngby was put at the disposal of the Danish State Telegraph Authority.

There was a young lady called Bright
Who travelled much faster than light
She set out one day
In a relative way
And returned the preceding night.

Membership Development Workshop
By Professor Dr. W.E. Proebster

This workshop was held at the European Operations Centre, Brussels on 23rd-24th April; there were sixteen attendees, representing several spheres of Regional interest. The main conclusions in order of importance, were as follows:

- Both new membership applications and renewals should be handled by the Brussels Centre; this should include a follow-up to ensure that members' needs are met promptly and competently. In order to put this into effect, the Brussels Centre should have an on-line connection to the central IEEE database.
- Membership Development Material, including membership leaflets, posters and promotional packs for conference stands, should be held at Brussels in quantities sufficient to satisfy the requirements of volunteers from Sections and Chapters.
- An IEEE 'bulletin board' should be established and maintained at the Brussels centre: it should be accessible by both e-mail and fax. Amongst its contents should be: prices of IEEE literature, conference, workshop and meetings announcements; transactions and standards; information on Student activities.
- Faster delivery of IEEE periodicals is of special importance in view of recent difficulties; it is to be hoped that the services of the Brussels Centre will relieve this problem. The Brussels Centre should be responsible for the quality of the IEEE membership database for Region 8. Experience has shown that the database carries some inaccurate or obsolete data; which underlines once more the importance and urgency of an on-line connection to the IEEE US computer system.

In addition there was considerable discussion on some other matters about which the Region has concerns and reservations:

- The procedure for dealing with eastern currencies
- The availability of Regional procedures which could influence and strengthen the Admissions & Advancement committee decisions
- We should move towards equal pricing of IEEE publications, whether delivered from Brussels or USA
- We should seek support, through Brussels, for a better understanding by the IEEE, of Region 8 cultural problems. The difficulties created by the more than fifty different Regional cultures are seldom appreciated outside the Region.
- The word 'European' should be deleted from the office title, it being too restrictive; it has to be made clear that the Brussels centre should serve all the Region.
- Annual membership renewals should be spread over the year; this would even the office workload and enable the office to provide an improved service to members.

In his closing remarks the Director-elect, Professor Peer Martin Larsen, commented favourably on the usefulness of the meeting and congratulated Professor Proebster and Mr. Keevers for the excellent arrangements.
Personal Communications

The Communications Society has launched a new publication "Personal Communications", the magazine for Nomadic Communications and Computing. The publication covers technical and policy issues relating to personalised, location-independent communication in all media and combinations of media, and at all protocol layers.

According to the Editor-in-chief, Hamid Ahmadi, "Personal Communications" will keep readers in touch with the technologies for keeping in touch, technologies which have improved the feasibility of the work-at-home and remote office concept. In addition, businesses are demanding faster and easier access to information and individuals are, with increasing frequency, looking to these technologies to manage their personal finances.

This new publication is intended for those who are working with communications, computer systems and networking technologies and covers both wired and wireless communications, including computing, mobile and portable systems and personal services. Contact: IEEE Brussels Office, 13 Avenue de l'Aquilon, B-1200 Brussels, Belgium. Tel: +32 2 770 2198. Fax: +32 2 770 8505

Supercomputing

IEEE Catalogue no. UH0182-6. A glossary for the ignorant, of terms which should be useful as an opening shot on any important social occasion - who could be without their "hypercube architecture" in a "systolic array"?

From: The Brussels Office, Brussels, Europe.

Call for Authors

Artech House is a leading publisher of books, software, and video training courses in telecommunications, optoelectronics, microwave, radar, and electronic devices and materials technologies.

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Commissioning Editor
Portland House, Stag Place
London SW1E 5KX
Tel: +44 (0)71 973 8077
Fax: +44 (0)71 630 0166

Artech House Books BOSTON • LONDON
The modem metre is not what it once used to be; a couple of centuries ago even the European natives could grasp the metric measurement system - it was based on the distance between one of the Earth's poles and some simple properties of ordinary water. The metric system that emerged from the French Revolution was simple, self consistent, comprehensible and decimally tidy. However the insatiable demands of science and technological progress quickly removed the simple, understandable metre, leaving in its place definitions based on the daunting language of quantum mechanics.

The metric system, as originally formulated, was supposed to be based on the absolute dimensions of terrestrial distance and the immutable properties of water. A new measurement, which would replace the English foot and its approximate French equivalent, the pied de roi, was suggested in 1670 by Gabriel Mouton, a French Vicar who introduced a unit of length called the metre; it was equal to one 10-millionth of the distance from one of the Earth's poles to the equator. During the French revolution that distance was calculated from the French coast at Dunkirk and the French equivalent, the pied de roi, was suggested in 1670 by Gabriel Mouton, a French Vicar who introduced a unit of length called the metre; it was equal to one 10-millionth of the distance from one of the Earth's poles to the equator. During the French revolution that distance was calculated from the French coast at Dunkirk and the French experts had devised a fallback unit to be used in case the official platinum metre should be lost or destroyed.

Even in 1799, when France officially adopted the metre, definitions based on material objects. The metre, traditionally supposed to be represented by a pair of scratches on a platinum bar held in a vault in France, has been repeatedly redefined, most recently in 1983. In place of water and geography we then had a new metre - the distance that light travels in one 299,792,458th of a second. This too was short lived, to be replaced by multiples of specified wavelengths of laser light. Yet another change resulted in the second itself acquiring a new definition. Using a new clock, based on a hydrogen maser and the microwave-excited vibrations of caesium atoms, the second is defined as the time that passes during 9,192,631,770 of these atomic vibrations. Doubtless before the ink is dry on this definition, there will be yet another, which of course will be even more precise than the last.

It remains only for some hard-working scientist to discover a fundamental measure for the elderly kilogram.
NEWS FROM THE SECTIONS

France
By Mme Frédérique Vallée

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

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

ICEM '94, International Conference on Electrical Machines, Gif-sur-Yvette, France, [September 5-8, 1994]. 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.

- ISATA 27th International Dedicated Conference on Supercomputer Applications for the Transportation Industries, Aachen, Germany, [October 31, November 4, 1994]. Inf. : Dr J. Soliman, ISATA Secretariat, 42 Lloyd Park Avenue, Croydon, CRO 5SB, England, phone : (44) 081 681 3069, fax : (44) 081 686 1490.

ULTRASONICS Symposium, Cannes, France [Hôtel Martinez, November 1-4, 1994]. Inf. : M. Gérard Quentin, Université Paris VII, 2 place Jussieu, 75251 Paris Cedex 05, France, phone : (33) 1 43 29 51 22, fax : (33) 1 43 54 28 78.

JINA 94, 8th International Conference on Antennas, Nice, France, [November 8-10, 1994]. Inf. : Secrétariat JINA 94, CNET-PAB, Centre de La Turbie, 60320 La Turbie - France, fax : (33) 93 41 02 29, teléx: 470159F.

The French Section has granted its sponsorship to the following symposium : - INTERWORKING '94, Second International Symposium on Interworking, Sophia-Antipolis, France, [May 4-6, 1994]. Inf. : Dr M. Besson, ASCOM, 2229, route des Crêtes, 06560 Valbonne, phone : (33) 92 94 22 04.

NEWS IN FRENCH


Les mardis parallèles de l'I.E.E.E : Le groupe de travail intitulé "Parallélisme et systèmes distribués" fonctionne les mardis après-midi, une fois par mois, au CNAM de Paris. (inf. J. Myoupo - Université Paris Sud - CNRS URA 410, LRI, bat. 490, 91405 Orsay, tél : 69 41 66 34, ou C. Cézin, Université de Picardie Jules Verne, UFR de Mathématique & Informatique, LAMIFA, 33, rue St Leu, 80039 Amiens, tél : 69 41 70 82, e-mail : cerin@iri.fr).

Israel
By Professor Ady Seidman

Fellow Awards
The Israel Section congratulates the following members who were elected to the Fellow grade, as from January 1 1994: Uri Shaked for "Contributions to the theory of singular optimal estimation and to linear control theory"; Shlomo Shamai for "Contributions to Shannon theory as applied to the evaluation of the reliability of communication channels; Miati Wax for "Contributions to sensor array signal processing and model selection"; and Ehud Weinstein for "Contributions to the application of statistical methods to signal processing and time delay estimation".

New Chapters
Two Chapters have recently been established: Vehicular Technology, Chairman Dr. Reuven Meidan; and Information Theory, Chairman Dr. Meir Feder. The formation of two other chapters is being considered: Prof. Anthony Weiss is organizing the Signal Processing Chapter and Marcel Friedman the Reliability Chapter.

The 18th Convention of IEEE - Israel. A call for papers was issued for the 18th Convention to be held in Tel-Aviv from March 7th to 9th, 1995. The papers, to be published in Proceedings, will be in English. For an advance programme and registration, please mail your address to:

IEEE, Department of Electrical Engineering, Faculty of Engineering, Tel-Aviv University, 69978 Ramat-Aviv, Israel.

Elections
For the Israel Section Management and for some Chapters were held in May, 1994.

Section Chairman: Prof. Ady Seidman Tel-Aviv University, Faculty of Engineering, IL-69978 Ramat-Aviv, Israel Tel.: 00972-3-6408138, FAX: 00972-3-6423508; e-mail: seidman@eng.tau.ac.il.

Now would be the time for all good men to come to the aid of Regional Activities - Pay your dues early.
**South Africa**

**By Professor Petrie Meyer**

This year the Engineering Faculty of Stellenbosch University celebrates its 50th anniversary. South Africa Section's contribution to the festivities will be "Symposium '94", a two day event in which all chapters will take part, including the newly formed Control chapter.

**The Programme**

**3rd October 1994.** The eighth South African Symposium on Antennas and Propagation, and Microwave Theory and Techniques. Prof. D.B.Davidson, Tel: +27 21 808 4458. Fax: 4981. E-mail: davidson@firga.sun.ac.za

**3rd October 1994.** First South African Symposium on Small Computer Systems. Mr. H.J.Gouws. Tel: +27 21 808 4334. Fax 4981. E-mail: hjgouws@firga.sun.ac.za.

**4th October 1994.** The Seventh South African Symposium on Communications and Signal Processing. Mr. J.G.Lourens. Tel: +27 21 808 4012. Fax: 4981. E-mail: lourens@firga.sun.ac.za

**4th October.** The first South African Symposium on Small Satellites and Control. Prof. A. Schoonwinkel. Tel: +2721 808 4926. E-mail: schoonwi@firga.sun.ac.za.

Stellenbosch is one of the most delightful towns in South Africa - it is also one of the oldest, situated between mountains in the heart of the wine-growing area, some 40km from Cape Town. Members from anywhere in the Region will be most welcome; if you can make it to these celebratory meetings you may rest assured that your time will not have been wasted. There is ample accommodation and transport facilities are excellent.

Increased use is being made of both the e-mail network and the computer diskettes from "Regional Activities". Another of our more interesting developments is the introduction of graduate symposia, where "masters" students have the opportunity to present their work to fellow students and to discuss joint interests, the students opinion is that these symposia are interesting and informative and provide a first class introduction to the sometimes traumatic business of putting ones views to a critical audience; they should continue.

**Section Chairman:** Professor Duncan C. Baker, University of Pretoria Dept of Electrical Engineering, Pretoria 0002, South Africa. Tel: +27 12420 2773. Fax: +27 1243 3254. E-mail: duncan.baker@ee.up.ac.za

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**Germany**

By Professor Dr. E. Handschin

The executive committee of the section met on May 17th in Frankfurt, under the chairmanship of Professor Dr. A. Schwab. The section now has 3,260 members, including 600 students. The secretarial support provided by Dr. Schanz, manager of the ITG at VDE headquarters in Frankfurt, is much appreciated. Close cooperation between VDE and IEE is an important consideration for both engineering associations. The president and secretary of the Institute visited VDE in the spring of 1994 to discuss the cooperation agreement. In order to improve relations between both organisations a joint working group has been suggested. In agreement with the treasurer Prof. Dr. Wiesbeck, the chairman has suggested that financial support should be given to student branches and chapters, so as to make their programmes more attractive and complete.

**Chapters:** In addition to the existing five chapters within the German section, the foundation of the following two chapters is in progress:

- **Information Theory**
- **Electromagnetic Compatibility**

Since the chairman of the joint Swiss-German chapter "Engineering in Medicine & Biology" will not be available in future, a new chairman will be appointed to take over until the autumn of 1994.

**Students:** The student branch activities have been successfully organised by Prof. Hahn, he suggests that it would be advantageous to have a more intensive information and programme exchange between student branches.

**Intelligent Robots and Systems.** This important international conference will be held in Munich from 12-16th September 1994. The theme of the conference, which is being held in Europe for the first time is "Advanced Robotics and the Real World". During the conference more than 300 contributions will be presented by leading international researchers from academia and industry. They will illustrate the latest advances in robot intelligence and dexterity, by experiment or by applications from the real world. The conference will contain parallel presentations on the broad themes of passive circuit analysis and modelling, and device and circuit models in systems C.A.D. Keynote papers will be presented by Linda Katehi, University of Michigan and Steve Tucker, HP-EEsoft, these will focus on silicon circuit modelling at mm-wave frequencies and the latest developments in rf and microwave simulation. Contact:

**TPC Chairman - Professor J.A.C. Stewart, Department of Electrical and Electronic Engineering, The Queen's University of Belfast, Ashton Building, Stranmillis Road, Belfast BT9 5AH. Tel: +44 232 245133. Fax: +44 232 667023**

**Workshop: EMO '94 High Performance Electron Devices for Microwave and Optoelectronic Applications** at King's College, Strand London on 14th November 1994. Cooperatively sponsored by the ED & MTT Societies and the national IEE. The technical programme will provide an opportunity for discussing the increasingly demanding requirements for advances in semiconductor materials, device processing and circuit design. Contact:

Dr. Ali A Rezazadeh, Dept of Electronic and Electrical Engineering, King's College, Strand, London WC2R 2LS. Tel +44 71 873 2879. Fax: +44 71 836 4781. E-mail: A.Rezazadeh@UK.AC.KCL.CC.OAK (Janet Network)

*Chairman: Mr. Terry H. Oxley, "Tremont", Back Lane, Halam, Southwell, Newark Notts NG22 8AG England. Tel: +44 636-815510. Fax +44 636 815865.*

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**United Kingdom & Republic of Ireland**

**By Mr. Terry H. Oxley**

European Chapter Workshop: CAE, Modelling and Measurement Verification at the Wembley Conference Centre, London on 24th October 1994, in conjunction with Microwaves '94. Cooperatively sponsored by the MTT Society and the national IEE. The technical programme, structured with a mixture of formal and poster sessions, will contain parallel presentations on the broad themes of passive circuit analysis and modelling, and device and circuit models in systems C.A.D. Keynote papers will be presented by Linda Katehi, University of Michigan and Steve Tucker, HP-EEsoft, these will focus on silicon circuit modelling at mm-wave frequencies and the latest developments in rf and microwave simulation. Contact:

**TPC Chairman - Professor J.A.C. Stewart, Department of Electrical and Electronic Engineering, The Queen's University of Belfast, Ashton Building, Stranmillis Road, Belfast BT9 5AH. Tel: +44 232 245133. Fax: +44 232 667023**

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Dr. Ali A Rezazadeh, Dept of Electronic and Electrical Engineering, King's College, Strand, London WC2R 2LS. Tel +44 71 873 2879. Fax: +44 71 836 4781. E-mail: A.Rezazadeh@UK.AC.KCL.CC.OAK (Janet Network)

*Chairman: Mr. Terry H. Oxley, "Tremont", Back Lane, Halam, Southwell, Newark Notts NG22 8AG England. Tel: +44 636-815510. Fax +44 636 815865.*
Have you read page 1?
France Signal Processing Chapter
By Professor F. Castanie

In addition to an exhibition of products, Digital Signal Processing '94 will include a cycle of high quality conferences, led by specialists in the subject. The conferences will take place in the Palais des Congrès and will be on a different topic each day:

* Algorithms and Architectures for DSP; Digital Communication; Multimedia (sound and image coding).

This is a complete exhibition of hardware, software, solutions and services offered to signal processing applications designers. Round Table discussions and an Exhibitors Forum

Information from: Joelle Zanchi - Tel: +33 4728 4656. Fax: +33 4728 4699

For Students
By Mr. Roman Mittendorfer

E-mail: Once again I should like to invite all Student Branches to join the IEEE e-mail network. Using e-mail will improve communications among IEEE volunteers, Student Branches, Branch Chapter and Sections, and the members of the Institute staff. All connected branches will receive deadline reminders, useful information and messages from IEEE headquarters. To sign up your Branch, please send an e-mail message to startup@ieee.org, it should contain the following information:

1. your name and e-mail address
2. Your daytime phone and/or fax numbers
3. The name of the branch / branch chapter you represent
4. The name of the Branch chair and Counsellor who has appointed you as e-mail liaison

To receive the current directory of IEEE Student Branches registered with alias addresses listed at "ieee.org", send an e-mail message to: directory.sb@ieee.org. Using this information, your Branch can connect and communicate with other Student Branches worldwide!

Region 8 Student Representative (RSR). Roman Mittendorfer, Muenzgrabenstr. 244/214, A-8010 Graz, Austria. Tel: +43 316 873 7274. Fax: +43 316 873 7266. E-mail: r.mittendorfer@ieee.org or mittendorfer@ffj.fug.net.tu.graz.ac.at

North Italy
By Dr. Alessandro Gandelli

At the Section executive committee meeting, 7th April, the calendar of Conferences and meetings were discussed. Among the most significant events sponsored by the Section and Chapters it is opportune to remember the lecture given by Prof. John G. Kassaklan, Director, MIT Laboratory for Electromagnetic and Electronic Systems; his subject was "Power Electronics - what is it? - where is it? - where is it going?" The venue was the F.A.S.T Auditorium in Milan and the date 16th May 1994. PELS & IELS Joint Chapter, and the Section, cooperated in the organisation.

The same Chapters organised the second "AC Motor Drives Technology" course in Vicenza. Prof. Ramu Krishman, Virginia Polytechnic Institute USA, presented the main lecture.

The IM Chapter, sponsored by the North Italy Section, has organised two very important meetings: the International Workshop on Mathematical Methods in Electrical and Electronic Measurements - July 1994, and the Third Volta Colloquium on Partial Discharge Measurements - 31st August - 2nd September 1994.

The second of these conferences will be held at the palatial meeting facility in Villa Olmo, one of the residences of the former Dukes of Milan. The first event was devoted to improving the exchange of ideas between mathematicians and electrical and electronics engineers working on measurements. The second meeting continues a successful venture started in 1980; it is devoted to the theory and application of Partial Discharge Measurements. This year the main topic is "Fault Detection and Interference Rejection". Further information may be obtained from the General chairman Prof. Arnaldo Brandolini, Dept. of Electrical Engineering, Piazza L. da Vinci 32, 20133 Milano Italy. Tel: +39 2 2399 3798. Fax: +39 2 2363 561. E-mail: arnaldo@quadrel.etec.polimi.it.

The MTT Society and its N. Italian chapter cosponsored the "European Gallium Arsenide and Related III-V compounds Applications Symposium, held in Torino 28-30th April.

Finland
By Aarno Lehtola and Jari Jokiniemi

Artificial Intelligence Research - August 29th 31st. The Section, the Computer chapter, the Finnish Artificial Intelligence Society (FAIS main organiser), Åbo Akademi, University of Turku, and the School of Economics and Business Administration, are jointly organising a conference on Artificial Intelligence Research in Finland, STEP '94. It will be held at the Turku Technology Centre (Lemminkäisenkatu 14-18 Entrance A) Turku, Finland

STE P '94 will be a forum for all research areas on artificial intelligence, including both basic and applied research. Future AI applications in business and industry are special themes of the conference. Topics include neural network theory, neural networks in medical applications, pattern recognition, fuzzy control, object-oriented programming, approximate reasoning and AI in business. There is also a tutorial on AI applications. STEP '94 will be organised in the form of tutorials, symposia, workshops, software presentation and exhibition. Contact: Sinikka Säteri, Turku School of Economics and Exhibition. Contact: Sinikka Säteri, Turku School of Economics and Business Administration, PO Box 1109, FIN-20521 Turku, Finland Tel: +358 21 63 83 513 Fax: +358 21 63 83 511 E-mail: ssateri@abo.fi.

Convention on Radio Science - Sodankylä - 27-28th October. At the Geophysical Observatory. The main topic for this year's meeting is ionospheric and plasma research; additional topics include: remote sensing, radio astronomy, Finnish satellite and rocket research, and measuring techniques. Contact: Tauno Turunen, Director Sodankylä Observatory, Tel: +358 693 619 813. Fax: +358 693 619 875. E-mail: ari.tauno.turunen@csc.fi

SP/CAS Chapter News. The VI Finnish symposium on Industrial and Engineering Mathematics was held in May '94 at Tampere University of Technology; particular emphasis this year being placed on signal processing, the Chapter played a substantial part in arranging and co-sponsoring the symposium; it was also host to the IEEE Distinguished Lecturer Professor Maurice Bellanger, who discussed "Signal AC Matrix, Predictive and Adaptive Filtering". Other speakers were Professors Antonio Pasomo, Jussi Rahola and IEEE Fellow Yrjo Neuvoo

We are constructing an up-to-date database for the E-mail addresses of members in the Signal Processing Society and the Circuits & Systems Society in Finland. Will all members of CS and SP please send your postal address via E-mail to 'ssari@cs.tut.fi.' Chapter Chairman: Moncef Gabbouj (moncef@cs.tut.fi). Chapter Secretary: Kari Saarinen (kari.saarinen@cas.tu.fi)

Section Chairman: Mr. Arno Lehtola, Nottakunnantie 3B9, SF-02230 Espoo, Finland Tel: +3580 456 6032. Fax: +3580 456 6027.
Coherent Optical System Design
P.W. HOOGJANS, Philips Electronics, The Netherlands
Coherent optical detection is one of the most promising techniques for high-capacity transmission systems. Such systems now show consistent performance both inside and outside the laboratory. The result of years of practical systems design at Philips, this book is application-driven, providing essential guidance for the analysis and design of high-performance coherent optical systems.
0471 94386 5 June 1994 422pp £49.95/$79.95

Microsensors
Principles and Applications
J.W. GARDNER, University of Warwick, UK
This text covers thermal, radiation, mechanical, magnetic, chemical and biological microsensors. In addition, it gives useful information on basic processing, interfacing, and bus system; the processing of materials for microsensor fabrication; microsensor array and intelligent sensors.
0471 94155 2 June 1994 336pp (o) £49.95/$79.95
0471 94156 0 June 1994 336pp (br) £199.5/$319.95

Microwave Devices, Circuits and Their Interaction
C.A. LEE and G.C. DALMAN, both of Cornell University, USA
The principle theme of this text is the special interactions between circuits and devices which lead to an examination of the design and performance characteristics of solid-state microwave amplifiers and oscillators. The book provides an up-to-date discussion on solid-state devices and circuits and gives an in-depth treatment of the specific topics with a strong theoretical description.
Wiley Series in Microwave and Optical Engineering
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Region 8 News August 1994 Page 9 Copy date for November - 1st October
highly skilled operator, an artist in his own right, whose working medium is coloured films and his brush a scalpel - sometimes used with great care to rectify the editor's mistakes. The machines used for printing R8 News are very large; they are made by the Heidelberg company in Germany, and are masterpieces of precision engineering, using electrics, hydraulics, pneumatics, optics, and of course the ever present computer. To buy one you would need to write a cheque for some $2,500,000; to repay their cost, they work 24 hours a day, seven days a week. One, installed in August 93 was printing the May R8 News and had not stopped for maintenance or breakdown during that period. The finished A1 colour-printed sheets are then folded and cut to A4, the wire bindings are inserted and the whole counted and packed for delivery. That is what the printers do.

3) The two tonnes of printed R8 News are transported to the "Mailers", whose job is to collect together Region 8 News, the advertisers' inserts and put everything into its right envelope in accordance with a matrix schedule prepared by the editor whilst the printing is in progress. The mailers use a mixture of machine and manual processes. 28,000 Region 8 News with 50/60,000 inserts are posted to members within three days of their delivery to the mailers. That is what the mailers do.

In drawing up the mailing schedules it has to be remembered that individual advertisers may require their inserts sent to members in any of the Regions 38 Sections and/or only to those members who belong to specified Societies. Whilst producing the insert schedules the editor has also to calculate, and pay for, the total cost of postage: the British Post Office gives credit to no one and postal charges have to be paid before a single R8 News is delivered. Within each country there are up to eight postal divisions; sorting the mail into those divisions is the responsibility of the mailers.

There are of course others involved: Freight agents for inserts from outside UK, Customs agents, a transport company (and the government VAT office).

Each copy of R8 News costs the Region about 38 cents

The Editor

The circulation of Region 8 News varies between 25,000 and 30,000 for each of its four issues; this excludes more than 3,000 affiliates who, not being "members" within the meaning of IEEE law, do not receive it. Although it may not appear to be so, it is not necessary to be a Section chairman, a Regional Director, or other high dignitary, in order to write for "The News"; its pages are open to all grades in all countries. Writing correct English is not a prerequisite and help will be given to any prospective author - but please send your copy to the editor well before the official deadline. The production process goes like this:

i) The author sends his article "the copy" to the editor, who makes what changes he considers necessary to fit it into the space available, modifies the English and decides on the layout. This material is entered into a Desktop Publishing programme, which produces a draft of the assembled page. After several proofs the final camera-ready copy appears. Photocopies of all these pages are made and pasted together into the form of a rudimentary Region 8 News, which includes instructions to the printer written in a curious kind of shorthand: this rough booklet is called a "paste-up". Everything is there in its correct position, with copies of all photographs, illustrations and advertisements correctly inserted. Typefaces, size of characters and colours are then marked on the paste-up and all colours indicated. This is the printer's bible for your job - make a mistake in this part and you will not earn thanks from anyone. The paste-up and a set of camera-ready A4 sheets go to the printer. That is what the editor does.

ii) At the printers the camera-ready copy is photographed and the films assembled on a "light box"; for an 8 page R8 News there would be 8 A4 films on one A1 sheet, from which four further A1 films are made, one for each of the primary, or process colours; mixing the process colours can produce almost any colour shade. These 4 colour films are now transferred to metal plates, which will be used for the printing process itself. You may be excused for thinking that this is a highly "computerised" high-tech process - not so, it is done by one
From Antalya to Bari
Melecon '94 - '96

By Dr. J. Baal-Schem

Melecon '94 was held in Antalya, it was organised by the Turkey Section, the Middle East Technical University, Bilkent University and the Chamber of Electrical Engineers of Turkey; all took a very active part in this most successful Mediterranean event.

The technical programme potentially included over three hundred and forty papers, in several parallel sessions, to be presented either orally or as posters; but unfortunately, an airline pilots' strike prevented some of the authors from attending and only 80%-50% of the papers were read and 50% of the posters displayed. There were sessions on Communications, Networks, Antennas, Electrical Machines and Power Systems - in most of these sessions the audience exceeded one hundred. Plenary lectures provided an opportunity for members to hear eminent speakers dealing with subjects of general electrical engineering interest.

Those registrants who succeeded in arriving at the conference hotel, more than one hundred and fifty were students, enjoyed an excellent climate and the graceful welcome which awaited them; the social programme could not have been better, with ample opportunities for strolling through the picturesque old city and its environs.

Free Exhibition Space for Newly Industrialised Countries

By Professor André Vander Vorst

Every fourth year the International Telecommunications Union organises a comprehensive exhibition; probably the world's largest. The next will be in Geneva from 2nd to 11th of October 1995; it will include a pilot scheme to enable selected small companies from Newly Industrialised Countries, which have until now not been able to take a substantial part in the exhibition, to have exhibition space without charge and a free booth.

It has recently been shown that technological advancement, allied to the liberalisation of markets, has done much to encourage the development of domestic telecommunications by small companies. It is amongst these entrepreneurial R&D and manufacturing companies, that the most promising Newly Industrialised Countries (N.I.C.) candidates are to be found; they represent an innovative, competent and fast growing segment of the domestic industry and are ideally situated to initiate mutually profitable cooperation and joint ventures with foreign partners. They fill a market need but pose no threat to multinational or large domestic suppliers. Due to their ability to react rapidly to market and technical changes and their close contact with consumers, they are able to make a profitable contribution to international technical cooperation. They are however, small and fragmented, have insufficient financial resources and lack experience in the techniques of publicity.

It is precisely to overcome these difficulties that the I.T.U. has initiated the N.I.C. pilot scheme. Companies who believe that they fall within the scope of this scheme and would like to take part, should contact Mrs. Lili Rison for more detailed information:

Mrs. Lili Rison
Project Manager, Telecom 95
Place des Nations
CH-1211 Geneva 20, Switzerland
Tel: +41 22 730 5244. Fax: +41 22 730 6444
Telex: +421000 UIT CH. Internet: telecominf@itu.ch

IEEE publications and conferences are helping to publicise progress in developing countries, including their related industrialisation efforts; it is from small companies in the Newly Industrialised Countries that the IEEE could find potential new members. The N.I.C. scheme fits well into the the Institute's increased interest in world-wide affairs.
### REGION 8 NEWS

#### INSERTS

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Separate advertising Inserts can be mailed with Region 8 News; they may be single sheets A4 or less, any size folded to A4 or less, or bound booklets. If required, inserts can be printed from camera-ready material supplied by the customer, or typeset from a customer's copy - there is no charge for layout.

A variety of selective mailings is available, based on geography or on members' technical interests. Special mailings at times other than the publication dates are also available. Details from the editor.

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Conference Record £50 (6x3cm) - title in colour

Region 8 News is published in February, May, August and November and is individually mailed to approximately 28,000 English speaking Electrical and Electronics Engineers in Europe, Middle East and Africa. It provides a variety of advertising services used principally for Conference Announcements, Technical Courses and Scientific Publications.

Material may be submitted camera-ready, as colour separation films, or on paper by fax or mail; there is no charge for layout. Publication dates are the first week in February, May, August and November; Deadlines - 10th of the month preceding publication. Further details from the editor.

Readership is representative of all groups, from University staff and students to engineering management in major industrial concerns.