

06 FEB. 1989



Editor

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From the Regional Director



Sven-Olof Öhrvik

This is my first opportunity to address Region 8 as its Director. I will use it to give you my impressions of the main events of 1988, events which will have an impact on activities within the Region during 89 and 90.

1988 has been an unusually active and successful year for Region 8, largely thanks to many initiatives and the devoted work of my predecessor Hugo Ruechardt. The culmination of that work was the main 25th Anniversary event in Munich, during which an agreement was signed between the Popov Society and IEEE Headquarters. This should be followed up with concrete action by Region 8; perhaps a Moscow Section could

be established within a year.

Another important event was the Chapter Workshop in Madrid, organised and sponsored by the Technical Activities Board, which is the focal point of the IEEE Societies. We should take advantage of this opening up of intensified contacts between Region 8 and the important technical activities within the Societies, through different activities within our Region; the natural contact between us and the Societies is the Chapters. This is one of many reasons to work for more chapters and for increased activity within Chapters. The continuation of these discussions would be one important item during the next Sections' Congress in 1990, to be held in Canada.

One interesting possibility for improving contacts with Society activities and also within the Region would be Electronic Bulletin Boards or 'Comp-Mail'. It might well be that the technology has become mature enough to motivate starting up activities within the next year or so. A very valuable initiative by Hugo Ruechardt was the establishment of a Headquarters transnational desk, which will start operation from 89. It is impor-

tant that we work together within Region 8 to find the optimum way of utilising this resource during its formative period. If we are not active it might not function properly or the resources might be directed mainly towards the needs of Regions 9 and 10.

During 1988 EUREL decided to discontinue direct participation in future EUROCON Conferences. On the other hand both EUREL and Region 8 are in principle interested in finding other areas of common interest that would motivate increased cooperation in the future. Interesting possibilities are to find areas of common interest in relation to the approaching West European integration, and also cooperation starting at the local level within a country, between the IEEE Section or Chapter and the National Society belonging to EUREL. Future EUROCONS might be organised on this basis. In other parts of Region 8 there is a rapidly growing interest in the formation of new Sections. We can also hope that the changed political climate in USSR and Eastern Europe will make it possible to improve the practical working together between the western and eastern

part of our Region. So many important and interesting things have been started or discussed in 1988 that we shall have a hard time within Region 8 to deal with them properly during the next two years. I am therefore happy that the regional organisation is functioning efficiently with a group of very dedicated volunteers - I really need that support. I should like to put a high priority on one additional item: continuation of the AFRICON Conferences, hopefully through an AFRICON '90. The first AFRICON, '83, in Nairobi was a full conference, the following one, AFRICON '87, was a successful workshop which was included in the 25th anniversary programme.

A long-range question, that we should perhaps start to discuss this year, is the future structure of our Region and the Region 8 Committee. When the number of Sections continues to grow it might be useful - sooner or later to - form subgroups within the region, of Sections in the same geographic area and with common interests and goals. Several other regions within IEEE are operating in this way.

Sven O Öhrvik

Athens Student Branch

By Chryssanthos N. Dellaocas

At the National Technical University of Athens, there is a large (170+ members) IEEE Student Branch and as part of our activities we are publishing a Branch magazine entitled IEEE HORIZONS. We aim to spread interest and IEEE awareness among our fellow students, as well as to inform them of our Branch activities. Each issue

contains introductory articles about the IEEE, Student Branch News, and Branch Announcements; in addition there are technical articles written by students and also articles about our profession in Greece, contributed by leading Greek Engineering Professionals.

A large part of each issue is devoted to a detailed listing of all recent internal publications (Di-

ploma Theses, Technical Reports, Ph.D. Dissertations) of our Electrical Engineering Department. Since our University does not publish an official Bulletin containing that kind of information, our Student Branch has decided to provide a service which collects, classifies and periodically publishes it. Data about all publications are stored in a microcomputer database,

which will be augmented each year and will soon provide an invaluable source of concentrated information not available elsewhere in our department. Our Student Branch is also starting a service that collects and makes available to interested parties, news of University E.E. alumni. We view this as a first step towards forming a proper EE

Continued on page 3

ELECTRONIC COMMUNICATION DIRECTORY

This Directory has been produced in response to the "Long-range Planning" suggestion on page 3 of the November Region 8 News.

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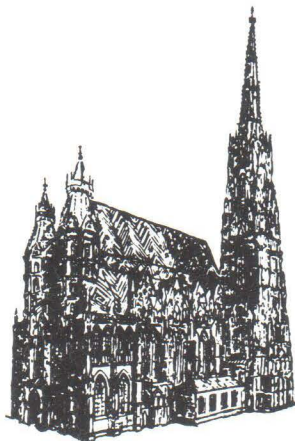
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ESSCIRC '89



Fifteenth European Solid-State Circuits Conference

Vienna, 20-22 September 1989

Vienna University of Technology
Austria

The aim of the ESSCIRC series of conferences is to provide an annual European Forum for the presentation and discussion of recent advances in solid-state circuits.

The Programme Committee invites contributions in the following areas:

- ★ Analogue
- ★ Mixed Analogue/Digital
- ★ Digital
- ★ Memory
- ★ Design Methodology

The Programme Committee particularly wishes to encourage contributions emphasizing aspects of system integration. Systems in all fields of applications and complexity will be considered.

Papers

Papers will be selected on the basis of a summary of not more than four A4 pages and will be published in the Proceedings. Papers should be submitted before **April 21st 1989**. After selection of the papers, authors will be informed about the decision of the of the Programme Committee in **June 1989**. The working language for the conference is English which will be used for all presentations and printed material.

Further Information

For further information and a registration form please contact:
ESSCIRC '89
Interconvention
Am Hubertusdamm 6 · A-1450 Vienna/Austria
Tel (+43 · 222) 23 69-642 Fax (+43 · 222) 23 69-648

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Tl=Telephone - Tx=Telex -
Fx=Fax - Et=EtherNet -
Eu=Euronet - Em=E-mail.

This is a general service for all R8 members who wish to be included in the Directory; if there are any additions or corrections, please contact the Editor.

Greece

By Professor B.C.Papadias

Χρόνια πολλά και Καλή Χρονιά!
Best wishes for the New Year.

Nineteen eighty eight was a very progressive year for the Greek Section, with several activities and events in all important areas. Referring to the most characteristic accomplishments, there was an annual increase in membership of about 40% (578 members in November 88 vs. 416 in November 87) and in the organisational area it was: the establishment of a Subsection in Cyprus, the formation of a Chapter in Instrumentation and Measurements, the beginning of procedures for three other Chapters and one Student Branch. Educational activities comprised one full-day Technical Conference on Modern Power Systems and many other Technical Meetings. The Student Branches also were very active: the registration of many new members, participation in the Paper Contest and the anniversary events in Brussels, with one paper for 1988 and three for 1989 and the publication of a new periodical.

The first issue of the periodic-

al, the title of which is "Horizons" has a good 38 pages and contains information about the IEEE and its Societies, scientific articles, university news, a coding system for publications and other interesting topics. The periodical is the result of a considerable effort and is planned to be trimestrial; no positive response has yet been received from Field Services, to our request for financial support for this activity, in order to keep up with the necessary expenses.

Section activities in all three areas - Membership Development, Education and Organisation - will continue into 1989 at a steady rate. A one-day Technical Conference on "Informatics and Communications" is scheduled for mid-May 1989, with seminars on Computer Networks, Data Bases, Communication Protocols, Optical Transmission Media and other topics. A wider participation of members in IEEE Conferences (Melecon '89, IEEE PES Meetings, etc) and increased participation in the Student Paper Contest are also on the list.

Section Chairman: Professor

Basil C. Papadias, Dept. of Electrical Engineering, National Technical University of Athens, 42 Patission Str., Athens 106 82, Greece.

Continued from page 1

Alumni Association, which is missing from our department.

IEEE Horizons will initially appear twice a year, with plans to publish it more frequently as an increasing number of people become involved. The present Editorial Committee consists of IEEE Student Members Chrysanthos Dellarocas, George Kyriakopoulos, Socrates Palaiokrassas and Philip Vakalakis. Correspondence concerning Horizons and our Student Branch in general should be addressed to: IEEE Student Branch Athens, c/o Dr. G. Stasinopoulos, Division of Computer Science, National Technical University of Athens, GR-157 73 Zographou, Athens, GREECE.

The sample copy which has been sent to me has 40 pages and is very well produced; a most creditable effort - it is, of course, written in Greek. Ed.



**Palais des Congrès
Paris
April 12-14, 1989**

Conference programme: April 12-14, 1989

The European Test Conference has been established as a high-quality forum for the discussion of technical developments in electronic product testing, covering all types of product from integrated circuits through to systems, analogue and digital.

ETC89 will feature approximately 50 papers on topics including :

- Design-for-testability
- Built-in self-test
- CAE/ATE integration
- ATE systems and their application
- Failures and fault models
- Test pattern generation

Tutorial programme: April 11, 1989

ETC89 will be preceded by full-day tutorials on : ASIC test techniques (chip and board level); Design-for-test techniques for VLSI; Artificial intelligence and applications to test.

For further information and a registration form contact :-

ETC89, c/o SEE, 48 Rue de la Procession, 75724 Paris Cedex 15, FRANCE

Tel (+33) 1 45 67 07 70

Sponsored by the SEE. Supported by: EUREL, IEEE Computer Society, AICA, GME, IEE.
ETC89 is organised by the European Sub-Committee of the IEEE Computer Society TTTC.



Intensive Summer Course
on
CMOS VLSI Design

ANALOG & DIGITAL

LAUSANNE, SWITZERLAND
August 28 - September 15, 1989

organized by

**Electronics Laboratory of the
Swiss Federal Institute of Technology, Lausanne (EPFL)**

3 one-week modules are proposed to the participants with the possibility of choosing any combination of the 3 modules. However, if PART II is chosen, it is strongly recommended to follow PART I as well.

PART I INTRODUCTION TO CMOS INTEGRATED CIRCUIT DESIGN
(1st week: August 28 - September 1)

PART II ADVANCED VLSI DESIGN AND ARCHITECTURE
(2nd week: September 4 - September 8)

PART III ADVANCED ANALOG DESIGN
(3rd week: September 11 - September 15)

In addition to the lectures, a **hands-on training** will be provided to the participants in a modern **Computer Aided Instruction laboratory**. The training support includes 20 color-graphic Personal Workstations with advanced CAD tools for analog and digital circuit design, simulation and verification. In order to provide efficient hands-on training on the computer facilities (concerns PART I & II), the number of participants will be limited.

*Deadline for registration : **June 15th***

Registration fees in Swiss Francs: 1 week; 2'500.-, 2 weeks; 3'500.-, 3 weeks; 4'500.-

INSTRUCTORS

F.ANCEAU, M.ANNARATONE, M.J.DECLERCQ, M.R.G.DEGRAUWE, K.ESHRAGHIAN,
W.FICHTNER, B.HOCHET, F.KRUMMENACHER, A.OSSEIRAN, C.PIGUET, F.RAHALI,
W.M.C.SANSEN, G.C.TEMES, C. TRULLEMANS, E.A.VITTOZ

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'89 Intensive Short Courses organized by

Electronics Laboratory of the Swiss Federal Institute of Technology, EPFL
LAUSANNE, SWITZERLAND



GaAs IC Design

April 3-5, 1989

COURSE CONTENT & INSTRUCTOR

1. A Review of Submicron Technology
2. An Introduction to Gallium Arsenide VLSI Technology
3. Gallium Arsenide Process Technology
4. Gallium Arsenide Design Methodology
5. Circuit Characterization and Performance Estimation
6. GaAs Logic Families
7. On-Chip Optical Interconnect and Sensors
8. Packaging
9. Case Study
10. Multiproject Wafer (MPW)
11. Computer Aided Design Tools

Dr K. ESHRAGHIAN

UNIV. OF ADELAIDE, SOUTH AUSTRALIA
Director of the Centre for GaAs VLSI Technology

This intensive course aims at acquainting the participants with the various aspects of GaAs VLSI Technology and digital GaAs IC Design. Tutorial & Laboratory sessions will complement the lectures. For registration fee and mailing address please see below.

Deadline for registration : **March 15th**

Σ - Δ Modulators

June 26-29, 1989

COURSE CONTENT & INSTRUCTORS

1. "Introduction to the Oversampling Method for A/D and D/A Conversion"
Dr J.C. CANDY AT & T Bell Labs, HOLMDEL, N.J., U.S.A.
2. "Comparison of Oversampling Data Converters with Alternative Techniques"
Prof. G.C. TEMES UCLA, LOS ANGELES, CA, U.S.A.
3. "Quantization Noise in Σ - Δ Data Converters"
Prof. R.M. GRAY STANFORD UNIVERSITY, CA, U.S.A.
4. "Nonideal effects in Σ - Δ Data Converters"
Dr B. BOSER AT & T Bell Labs, HOLMDEL, N.J., U.S.A.
5. "Higher-Order Oversampling Data Converters"
Prof. C.G. SODINI MIT, MA, U.S.A.
6. "The Practical Realization of Σ - Δ Converters"
Dr R. KOCH SIEMENS CORP., MUNCHEN, W. GERMANY
7. "CAD and Design of Digital Filters for Σ - Δ Systems"
Dr E. DIJKSTRA CSEM SA, NEUCHATEL, SWITZERLAND

Deadline for registration : **June 1st**

Registration fee in Swiss Francs: 2'000.- (each course)

Mailing Address: Dr V. Valencic, EPFL-LEG, EL-ECUBLENS, 1015 LAUSANNE, SWITZERLAND

Phone: +41-21-693'39'72 Fax: +41-21-693'46'60

You Might Wish to Know

The **IEEE President-elect** for 1989 is Mr. Carlton A. Bayless; he will be the President for 1990. In the recent ballot, votes in Region 8 were cast as follows: Mr. Bayless 1345, Mr. Buckley 680, Mr. Feerst 251, Mr. Sumner 1504; which for Region 8 represents approximately 17% of the members eligible to vote.

The **IEEE Secretary** will be Dr. Hugo Ruechardt, our retiring Director. Dr. Ruechardt is Senior Director, Components Division of Siemens, Munich; no doubt he will continue to devote the same enthusiasm to his new duties as he did to the direction of Region 8. We wish him well in these fresh endeavours.

IFIP-VLSI 89 will be held in Munich 16-18th August. Information from Dr. Ulrich Lauther, Siemens AG, ZFE F2 DES 223, Otto-Hahn Ring 6, D-8000 Munich 83, Federal Republic of Germany.

The **Editor apologises** to Professor R.D. Findlay, of McMaster University, Hamilton, Ontario, Canada, for an incorrect legend to a photograph on page 8 of the August Region 8 News. "The 1988 Student Paper Contest" should have been "A Student workshop at the Vrije Univer-

siteit, Brussels", (which Professor Findlay conducted). Both the workshop and the student paper contest formed part of the Region 8 25th Anniversary Celebrations.

TENCON 89, a Conference on "Information Technologies for the 90s", will be held in Bombay, India, from 22nd - 24th November 1989. There will in addition be an international exhibition on telecommunications, office automation and computers. This Region 10 Conference is being organised by the Bombay Section in co-operation with the IEEE Computer, Communications, and Industrial Electronics Societies; Region 8 is represented on the Programme Committee by British and Swiss exponents.

At a recent meeting of the **Regional Activities Board**, the following were approved: 1. The formation of a Riyadh Subsection of the Saudi Arabia Section. 2. The revised Middle and South Italy Section bylaws (their title is now "Central and South Italy"). 3. Student Dues for 1989 will be increased by \$2 and the cost of the Student Potentials journal will be increased by \$1. 4. The formation of a CAS-04/CS23 chapter in the Israel Section.

ture, technical visits and a social programme. Reduced fees are available for registration before 1st March and for students. The final programme, registration forms, posters, requests for exhibition space and further information are available from Prof. W.E. Proebster, I.B.M. Laboratory, Dept. 3280-14, D-7030 Boeblingen, Federal Republic of Germany.

CompEuro '89 is sponsored by the Computer Society, IEEE Region 8, Verband Deutscher Elektrotechniker (VDE), and the Gesellschaft fuer Informatik (GI); it is supported by the IEEE Societies for Electron Devices, Lasers and Electro-optics, Communications, and by EUREL, EUROMICRO, GME, ITG, the Society for Information Display and the European Physical Society. Lufthansa is the official carrier.

Letters to the Editor

United States Activities Board Awards

Sir,
Some weeks ago we received from the USAB Awards and Recognition Committee some information concerning IEEE USAB Awards for Professional Activities; five different awards were mentioned. We think this is a good idea, but would it not be better to open such awards to all IEEE members, not only those from the U.S.A.

Wieslaw Seruga (Prof.) Poland Section.

Professor Seruga's letter has been answered by Mr. Michael J. Whitelaw (Vice-president, Regional Activities).

In implementing the IEEE Constitution the Board of Directors created the United States Activities Board as a structure specifically to serve the needs of IEEE members in the United States; similarly, the Regional Activities Board was created to serve the needs of members outside the United States. Furthermore, under the rules governing the USAB, its USAB Awards and Recognition Committee has "...developed the following types of awards for the purpose of recognizing outstanding service and contributions to professional activities in the **United States**. Currently seven awards are given in the name of the IEEE United States Activities Board". It is therefore, clear that the USAB Awards prog-

ramme can apply only to those IEEE members resident in the U.S.A (Regions 1-6).

The Regional Activities Board (RAB) is responsible to the Board of Directors for the remaining Regions; it has an extensive Awards Programme which provides for the recognition of outstanding service and contributions to technical, educational and professional activities - no limit is imposed by geographical boundaries.

Mr. Whitelaw attaches to his letter a formidable list of some 50 RAB awards and points out that USAB and RAB awards are not in competition and that the implementation of their Awards Programmes presents no problem. He further points out that the Policy and Procedures Manual, the rules which govern the IEEE, specifically permits the members of any Region to form its own Awards System, so long as it remains within the rules laid down in the Manual.

From Mr. Whitelaw's reply it is clear that 1. USAB is acting within the rules, 2. RAB does provide a considerable number of awards to which all Regions have access and 3. If Region 8 wishes to organise its own Awards Programme it is free to do so. RAB, states M. Whitelaw, is willing to help.

If any Region 8 Section considers such a Programme desirable then that Section should follow the rules and deal with the matter through the usual Regional channels. (Ed.)

Professional Communications.

Sir,
After some thought, how about "Electrical (Electronic) Engineering Exchange of Information, or EEEEI. We would then have IEEE-EEEEI.
Frank D. Szachta (KSA)

(Is there some IEEE bylaw which prohibits palindromic expressions? Ed.)

Sir,
I see it as the ultimate irony that the Professional Communications Society has not chosen a name which aptly tells its scope and aims. As an engineer and writer, though not a member of the Society, I thoroughly approve of the aims of the Society as expressed in your editorial. Certainly the name of such a Society should be a shining example of clarity. Here some possibilities which occur to me:

*Verbal and Visual Communication Society (VerViCom)
*Technical Communication Society (TecCom)

*Clarity in Communication Society (ClearCom)
*Graphic & Verbal Communication Society (GraVerCom)

I await with bated breath the ensuing debate.

Glenn M. O'Dell (Scotland)

Sir,
My candidates for a new name for this Society are:

*Technical Communications
*Professional Expression
*Technical Rhetoric
*Written Communication
*Science of Communication

An important rule which we have applied in the past is "Can this be translated" easily? (To another language, ie Oriental). This kind of thinking makes the writer clean up the jargon, colloquial terms, double negatives etc.

Ralph Dodds (Azores)

CompEuro '89

By Mr. R.C. Winton

For CompEuro '89, the International Conference on Advanced Technologies and Trends in VLSI and Computer Peripherals, more than 250 contributions have been received from 27 countries; some 200 of these have been selected for presentation. In order that the Conference shall be as up-to-date as possible, a half-day session has been programmed for late papers. The scope of CompEuro '89 is: VLSI, External Memories and Storage, VLSI and I/O terminals, VLSI sensors and controls, VLSI computers and communication, and VLSI technologies and trends. The anticipated attendance is 4-500.

The CompEuro '89 programme will include: tutorials, a technical exhibition of components, equipment and technical litera-

IEEE Awards

Professor Friedrich L. Bauer, of the Department of Mathematics and Computer Science, at the Technical University of Munich, has been awarded the "Computer Pioneer" Medal for 1988 in recognition of his conception of the Push-Down-Stack principle. The Keller principle for compact and rational Storage Allocation, which he and his late friend Klaus Samelson invented and patented during the fifties, is today both in its hardware and software form, so generally accepted that many are unaware of its origin. In particular all the efficient techniques for automatic translation of high level programming languages are based on the Keller principle. The decoration was awarded by a committee of the IEEE Computer Society and the plaque will be presented in San Francisco in February 1989.

Some fifty people have received Computer Society awards as computer pioneers. Among them are Konrad Zuse, J. Mauchly, J.P. Eckert, H.H. Goldstein, M.V. Wilkes, G.R. Stibitz. European recipients of the award include E.W. Dijkstra, W.L. van der Poel, A. van Wijngaarden, P. Naur, N. Wirth and H. Zemanek.

An award was also made this year to Marcian D. Hoff jr. for the development of the first micro-processor on a single chip (1969). With the addition of a Read-only chip for microprogrammes and a RAM chip for data and programmes, this led, in 1971, to the construction of the first electronic pocket calculator.

Karl Weinhart.

(Submitted by Professor W. Proebster - Translation by Anneliese Kirkaldy)

Experimental Astronomy

A New Journal: Details from Kluwer Academic Publishers, PO Box 989, 3300 AZ Dordrecht, The Netherlands.

Saudi Arabia

Jeddah Subsection

By Dr. M. Turkey

The following meetings were held in 1988:

- ★ Macintosh in the Engineering Office
- ★ Load Dispatch
- ★ Integrated Digital Substation Protection and Control Systems.

Denmark

By P. Martin Larsen

At the Annual Meeting held in Lyngby on December 6th, a new Section Executive Committee was elected. The Chairman for the last four years is succeeded by Ove Skovgaard, who has served as Secretary and Treasurer for two years. Alborg University Centre is represented by Jorgen Bach Andersen, and industry by M. Stallknecht.

During the four year period 1985-88 the number of meetings per year has increased to an average of 15 (59 in total) and the number of members has

increased from 288 to 329. The past chairman will now be responsible for membership development.

The Executive Committee decided last year, that new student members can pay their first membership fee to the Treasurer in Danish cash, to the Treasurer or the Student Counselor. It was felt important to make it easier for students to become IEEE members.

Section Chairman: Ove Skovgaard, Laboratory of Applied Mathematical Physics, Bld. 303, Technical University of Denmark, DK-2800 Lyngby, Denmark.

Sweden

By Dr. Anders Derneryd

The 18th European Microwave Conference was held in Stockholm from 12-15th September. It was followed by four workshops on low-weight antennas, millimetre wave technology, high power solid state devices and technology, and non-linear CAD tools for microwave and millimetre wave integrated circuit analysis. The Annual EuMC Microwave Prize was awarded to G. Splitt from DFVLR in Oberpfaffenhofen, West Germany for his contribution on multilayer microstrip antennas.

Last year 12 technical meetings were arranged by the two joint Chapters, MIT/AP and COM/VT. Please contact Peter Linner (MIT/AP) on 031-721733 or Henry Scheffe (VT/COM) on 08-7192159 for further information.

The formation of an additional Chapter is under consideration (ED/CAS); members supporting this should contact Kjell Jeppson on 031-721856.

Section Chairman: Dr. J. Piotr Starski, Chalmers University of Technology, Division of Network Theory, S-412 96 Gothenburg, Sweden.

Switzerland

By Professor F. Gardiol

The Swiss IEEE Joint Chapter of the MTT+AP Societies held in December, a one-day Sympo-

sium on Microwaves and Lightwaves. The event was organised by Mr. Walter Vollenweider, vice-chairman of the Chapter and was supported by the Joint Chapter CAS+ED. Eight lectures by key Swiss technical experts outlined the state of the techniques within Switzerland, providing a comparison with developments in the US and elsewhere. The lectures were attended by more than 80 very active and inquisitive participants, which in Switzerland, means that it was an outstanding success.

Chapter Chairman: Mr. Pierre L. Boyer, Ascom Hasler Ltd., Belpstrasse 23, CH3000 Berne 14, Switzerland.

GEOSCIE AND REMOTE SENSING IGARSS '88

This IEEE Society in conjunction with the Remote Sensing Society, URSI and the University of Edinburgh, organised this very successful conference. There were ten parallel sessions, more than 1,000 attendees, and proceedings which extended to some 2,000 pages weighing in toto in excess of 5 tonnes. The extensive discussions were a tribute to the quality of the papers and the enthusiasm of the audience. The introduction of "Short papers" proved to be a successful experiment; what is now needed is to devise a penalty system, perhaps a page charge, for authors who submit "long" papers. The "no-show" problem has yet to be solved.

Major interests were centered on Synthetic Aperture Radar, Ice on land and sea, wind fields, geology, precipitation and image processing; the Technical Prog-

United Kingdom and Republic of Ireland

By Mr. M. Bennett

The Second International Conference on Vacuum Micro-electronics, co-sponsored by IEEE UKRI Section, will be held at the Guildhall, Bath: from 24th-26th July 1989. Contact Professor C. Hilsum, GEC Hirst Research, East Lane, Wembley, for further information.

Copies of the Proceedings of the Convergence 88 meeting on Transportation Electronics are available at £15 each from Prof. C. W. Turner, Electrical Engineering Department, Kings College, Strand, London WC2R 2LS. Cheques payable to IEEE (UKRI Section).

ICASSP '89, International Conference on Acoustics, Speech and Signal Processing will take place at Strathclyde University, Glasgow, Scotland; on May 23rd-26th 1989 and not as previously announced.

At the recent Plan '88 conference sponsored by the IEEE-AES Society and held in Orlando, Florida, the paper presented by Dr. P. Daly of the University of Leeds with co-authors S. A. Dale and I. D. Kitching, "Position fixing using the Blonass C/A code" was given the Best Paper Award from nearly 100 papers presented. This is the second successive occasion on which members of the Satellite Communications Group in the Electrical Engineering Department of the University of Leeds have received the BEST Paper Award at an IEEE Plans conference. Dr. Daly and Mr. Dale also received the award jointly with a group from the Jet Propulsion Laboratory led by Dr. T. P. Yunck at Plans '86.

Section Chairman: Mr. Roland Saam, Micros for Managers, 149 Gloucester Road, London SW7 4TH. Tel: (+44) (0)373 5489.

Correction

Acoustics, Speech and Signal Processing

CASSP-89 The date of this conference was printed incorrectly in the November R8 News calendar: it should have been 23rd-26th May. Contact: Professor Tariq Durrani, Dept of Electrical Engineering, University of Strathclyde, Glasgow, Scotland, G1 1XW. Tel: 041 552 4400.

ramme Chairman deserves the thanks of everyone. To your reporter, the extensive use of acronyms constituted a not inconsiderable barrier to communication, for any misinterpretations he apologises in advance; is this a fitting subject for the IEEE Communication Society? GHB.

HAMBURG
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Fourth International Conference on

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University of Edinburgh, UK
11 – 13 April 1989

The Fourth International Conference on Developments in Power System Protection will be held at the University of Edinburgh from 11 – 13 April 1989. The Conference is being organised by the Institution of Electrical Engineers (IEE).

The ever increasing use of microprocessors in protection relays and developments in telecommunication technology have resulted in making possible major changes in the design of protection systems and of associated equipment such as fault recorders. These changes can result in less costly design and more efficient operation of the associated primary plant and system.

The International IEE Conference will feature papers on recent developments in protection, including those in plant and feeder protection, fault location and recording, simulation and automatic testing, and distribution protection and signalling.

Programme and registration form available from:—



Conference Services, IEE, Savoy Place
London WC2R 0BL, United Kingdom
Tel: 01-240 1871 Ext 222
Telex: 261176 IEE LDN G
Fax: 01-240 7735



UKRI SECTION

Joint Chapter
Acoustics, Speech & Signal Processing.
Communications.

MOBILE AND CORDLESS TELEPHONES

CALL FOR PAPERS

London, 25th-26th September, 1989

This workshop is being organised by the ASSP and COM Joint Chapter; papers describing research, development and new concepts are invited for the technical sessions. The following topics are suggested – other relevant subjects will be welcome:

- Future Technology
- Experiments & Trials
- User Considerations
- Frequency Spectra
- Coding and Modulation
- Applied Signal Processing
- Antennae
- Equalisation & Diversity
- Multiplexing
- Propagation

Those wishing to offer a contribution should submit full typescripts of not more than five A4 pages before 15th May to:

Dr. A. H. Aghvami, Communications Research Group
Dept. of Electronics and Electrical Engineering
King's College London, Strand, London WC2R 2LS, U.K.

In association with the Workshop, an exhibition is being planned. For further details please contact Dr. Aghvami at the above address.



GENEVA
3rd-8th October, 1989

WORLD ELECTRONIC MEDIA SYMPOSIUM

Policy – Technical – Legal

International Telecommunication Union
ITU-COM Secretariat

Place des Nations, CH-1211 Geneva 20, Switzerland.



THE INSTITUTION
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ENGINEERS

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University of Southampton
2nd-7th April, 1989

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This Vacation School will be of interest to those, with a background in computer hardware, who are involved in the design of real-time systems dependent on software for their function and performance.

Further details may be obtained from:

Miss A. F. Rowe, IEE, Savoy Place, London WC2 0BL, U.K.

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SYMMETRY OF STRUCTURE

AN INTERDISCIPLINARY SYMPOSIUM

BUDAPEST, HUNGARY, 13th-19th AUGUST, 1989

The themes of the symposium cover the structural and functional aspects of symmetry/asymmetry of different disciplines, arts and skills, including electronics, computing as well as human-computer or nature-technology (e.g. neural circuits) relationships.

Extended Abstracts (three-four A4 size pages) of proposed contributions should be submitted by the end of March, 1989. The final, camera-ready versions of the accepted abstracts are expected by 30th April, 1989.

Mailing address: Dénes Nagy and György Darvas, Co-chairmen, Institute for Research Organisation of the Hungarian Academy of Sciences, P.O. Box 4, Budapest, H-1361, Hungary.

The conference is co-sponsored by the Hungary Section of the IEEE.