IEEE

Region 8 News

No 101 - February 1993 Europe, Middle East and Africa Editor

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From the Regional Director



At the beginning of my term of office as your new Director I am very much aware of the huge debt of gratitude that we all owe to

Kurt Richter, our retiring Director, for the work he has done so ably on our behalf during the past two years. He has been a true champion of the need for IEEE to deliver the best possible service to its Regional membership, a cause that I am very happy to pursue in his footsteps.

Membership retention is a significant problem for the Institute in this time of recession, with more than 10% of members not renewing each year. Although in Region 8 the situation is less serious, the real cost of the membership dues is an uncomfortably high proportion of an engineer's salary in many Sections. Those fortunate to have the opportunity to serve IEEE at Chapter, Section or Regional level cannot avoid the responsibility for making the Institute as attractive as possible to both existing and potential members.

That is why I make no apology for urging that 'value for money' should be a priority in our future plans. To achieve this goal we need help from you, the members, in all kinds of ways, such as volunteering to serve on Chapter, Section or Student Branch Committees or in making your views known to your representatives. Some of the questions currently under review are: Would increased member participation through Chapter activity, such as workshops and other small scale technical meetings be welcomed? Is there a consensus on the type of technical publication most useful to the practising engineer in industry? Are there ways in which IEEE can enhance the professional engineer's career in a region as diverse as ours ?

If you have thoughts about any of these issues, or indeed about other matters that you feel are not being addressed adequately, I invite you to send them to me directly or through your Section Committee. Twice each year your Section Chairman attends the Region 8 Committee Meeting, reporting on the Section's activity and expressing views on a wide range of IEEE business. Every Section makes a presentation at these meetings, often including the concerns of the members over Institute services, delays in receiving publications, confirmation of membership, etc. The Region 8 Committee, in turn, can ask the Director to raise key issues with the Board of Directors which meets three or four times a year. This year presents an especially good opportunity because of the Sections Congress to be held in Puerto Rico in July. There are also the correspondence columns of "Region 8 News" and the "Institute", ideal publications in which to make your views known to a very wide readership.

As engineers we are dedicated to change, to continuous improvement, and to meeting the needs of the market. I wish you a happy and active New Year!

Charles Turner, Director Region 8.

Sweden

by Dr. J. Piotr Starski

Electromagnetic Day

The "Electromagnetic Day", a oneday Sweden Section conference, wishes to express its gratitude for encouragement and financial support from:

Director Prof. Dr. Kurt Richter Ericsson Radar Electronics SAAB Ericsson Space SAAB Military Aircraft Nat. Defence Research Establishment Dr. R. Jansen

Dr. M. Schneider

Copies of Dr. Alwyn Seed's lecture entitled "Opto-electronic Techniques for Phased Array Antennas" can be obtained from the Section Chairman, address below.

EMC Chapter

The Chapter is planning its spring meeting in connection with the RVK '93 conference in Lund, from 5-8 April 1933

VT/COM Chapter

VT/COM Chapter will hold its annual meeting in February 1993. The Chapter is organising the VTC '94 conference, which will be held in Stockholm from 7-11th June 1994. Conference information may be obtained from:

IEEE VTC 1994 Congress Office, Ericsson Radio Systems AB,S-164 90 STOCKHOLM Sweden

E-mail

The Sweden Section has opened an e-mail box with the address:

sec.sweden@ieee.org

The box is open to all IEEE members in Sweden

Section Chairman: Dr. J. Piotr Starski, Chalmers University of Technology, Division of Microwave Tech., S-412 96 Göteborg, Sweden. Tel: +46 (0) 31 772 17 34; Fax:+46 (0) 772 15 61: e-mail piotr@nt.chalmers.se(UUCP)

Institute of Electrical & Electronics Engineers Regional Director: Prof. Charles Turner

France

Mme Fréederique Vallée

CONFERENCES: In association with other Societies, the France Section is participating in the following conferences:-

Second Conference on HOOD, Nantes, [march 17-18, 1993]. (inf. Henri Habrias, IUT - IRIN, 3, rue du maréchal Joffre, 44041 Nantes Cedex 01, tel : (33) 40 30 60 52, fax : (33) 40 30 60 53/01, e-mail : Habrias@NAIUT.DNET.CIRCE.FR)

CompEuro '93, (Evry, May 24-27], is the 7th in a series of international conferences organized in Europe by Region 8 and the Computer Society. The general theme is : Computers in Design, Manufacturing and Production. The automation of production is a strategic stake in our industrial future. Computer .echnology will continue to play a major role in this process of modernisation. Today's industrial practices are based on the integration of means of production. The factory of the future will need a complementary technology; for which meetings between research scientists and industrialists are indispensable.

Undersea Defence Technology, Conference and Exhibition, Cannes, [Palais des Congrès, September 15-17, 1993], The UDT 93 chairman is Jean-Luc Lambla. (inf. Microwave Exhibitions and Publishers, 90 Calverley Road, Tunbridge Wells, Kent TN1 2UN, UK).

INTELEC 93, 15th International Conference on Energy in Telecommunications, Paris, [Palais des Congrès, September 27-30, 1993], The papers presented on the technical environment (Energy, Thermal and Aeraulic technology, Protection, Monitoring and Management) which is considered to be an indispensable component in system reliability. In addition to the high level sessions of this International Conference, a large Exhibition of equipment will be organized including demonstrations directly linked with the themes of INTELEC 93 so that the professional members of the areas concerned (telecommunications operators, telephone equipment companies, manufacturers of equipment for the technical environment, engineers and researchers) can appraise today's market and discover new technologies. (inf. : SEE/INTELEC93, 48, rue de la Procession, 75015 Paris, tél.: (33) 1 44 49 60 60, fax : (33) 1 44 49 60 44/49).

We have the pleasure in announcing that the following conferences are in preparation:-

Ichps-VI, Paris, [September 94], (inf. M. Gérard Santucci, Club 15 - Réseaux d'énergie, SEE, 48, rue de la Procession, 75015 Paris, tél.: (33) 1 44 49 60 60, fax : (33) 1 44 49 60 44/49).

Oceans '94 OSATES (Ocean Space Advanced Technology European Show), Brest, [September 13-16, 94], "Ocean engineering for today's technology and tomorrow's preservation" (inf. Mme Bonami, SEE, 48, rue de la Procession, 75015 Paris, tél.: (33) 1 44 49 60 60, fax : (33) 1 44 49 60 44/49)

Other French News

Conférences parrainées par la Section Française

- Symposium Echocardiographie & Analyse d'Images Ventriculaires [Dijon, 25-26 mars 93], (inf. Secrétariat scientifique -Symposium Echocardiographie & Images Ventriculaires / c/o Service d'Informatique Médicale - Faculté de médecine de Dijon, 7 bd Jeanne d'Arc, 21033 Dijon cedex, France, tél. :(33) 80 65 23 23 p.425 (lundi, mardi et mercredi), fax : 80 29 37 21).

Véhicules propres [La Rochelle, Palais des congrès, 14-17 septembre 1993]. (inf. : Secrétariat général VP/CV 93, SEE, 48, rue de la Procession, 75015 Paris, tél.: (33) 1 44 49 60 60, fax : (33) 1 44 49 60 44/49). Dans le cadre des accords passés entre l'A.R.E. et la Section française de l'I.E.E.E., nous annonçons les conférences suivantes:- "L'industrie électronique japonaise" (par Jean Mariani, ingénieur en chef de l'Armement, ancien Conseiller Scientifique près l'Ambassade de France à Tokyo, Direction Internationale de Thomson-CSF - 3 mars 1993).- "Le concept de qualité dans les composants électroniques (et le test des Circuits Intégrés)" (par Claude Leclercq, L.C.I.E, 31 mars 1993).- "Les transmissions dans la Marine Nationale" (par le C.V. Christian Ract-Madoux, chef du Bureau Transmissions à l'Etat-Major de la Marine Nationale, 5 mai 1993).

Ces conférences auront lieu à 17h, dans la salle ní 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.

Un chapitre OES au sein de la Section Française l'Oceanic Engineering Society est né officiellement le 28 décembre 1992 au sein de la Section Française.Jean-Yves Jourdain remercie vivement tous les membres IEEE/OES qui l'ont aidé à créer ce chapitre, particulièrement ceux qui se proposent de l'animer sans oublier Maurice Bellanger, Président de la Section Française et Glenn Williams, Président de OES, pour leur soutien déterminant.Ce chapitre s'investit d'ores et déjà dans l'organisation de deux grandes manifestations scientifiques : Undersea Defence Technology 93 et OCEANS'94 OSATES. Il va tenter de créer entre ses membres un efficace réseau d'échange d'informations.Gageons que la vocation du chapitre s'étendra rapidement à l'échelle européenne pour renforcer les liens entre les chercheurs et les ingénieurs de la Communauté qui étudient l'OCEAN.(inf. J-Y Jourdain, Thomson sintra asm, 1 avenue Aristide Briand, 94117 Arcueil, tél : 49 85 35 73, fax : 49 85 30 03)

Cotisations 1993 Cette année, n'oubliez pas de les payer directement aux USA!

Chapter Chairman: Dr. Maurice G. Bellanger, 54 rue de Rennes, 75006 Paris, France. Tel: +33 14094 7516

MagNet 5 The New Electromagnetics CAD Package from **Infolytica**

Introducing the New MagNet 5 system for low frequency electromagnetic field CAD analysis using finite elements. Easy to use Fast-Track system, plus Tool-Box for CAE system users. Prices start as low as £1575/year for commercial use and £180/year/seat for 5 seats, for Educational use. Applications include: motors; actuators, loudspeakers; electric fields; magnet design.

Details, prices, demo disk, brochure, from: Dr.R.Ashen: Infolytica Ltd, PO Box 1186, London SW7 2×T, UK. Tel: & Fax: +44 (0) 71584 5413. email 1 0 0 0 3 1 . 1 3 2 1 @ Compuserve.com) OR

Prof R.Belmans K.U.Leuven, Belgium, Tel: +32 16 22 09 31 ext 1020. Fax: +32 16 29 30 64 ; (Email 100031.2336@Comp userve.com)



MagNet runs under X/Windows on Pcs (DesqView/X)), HPs, SUNs, DEC, etc.

Coming Soon: automatic adaptive meshing, for User specified accuracy. 300+ sites World Wide.

IECON '93



The 19th Annual Conference of the IEEE Industrial Electronics Society. At the Hyatt Regency-Maui, Lahaina, Maui, Hawaii

The objectives of the conference are: To attract High Quality Papers, to Promote Professional Interactions and to foster the advancement of science, technology and fellowship. The technical programme will be organised around the following topical areas

Power Electronics Robotics, Vision and Sensors Factory Automation **Signal Processing and Control Emerging Technologies**

Submit five copies of: a 100 word abstract and a 1000 word summary, in English, by March 8th 1993. Final Manuscript due by August 14th 1993.

Further details from: Dr. C.J.Chen, AT & T Bell Labs Room 3E226C, Whippany Road, PO Box 903 Whippany, NJ 07981-0903 U.S.A. Tel: +1 201 386 3095. Fax: +1 201 386 2942. Internet: cjc@whamt.att.com

OR

Prof. Javier Uceda, Universidad Politecnica de Madrid, E.T.S. Ingenieros Industriales, Jose Gutierrez Abascal 2, E-28006, Madrid, Spain. Tel: +34 1 411 7517. Fax: +34 1 564 5966

Germany By Prof.Dr.-Ing.Adolf J. Schwab

The Germany Section is joining the UKRI Section in cosponsoring an International Specialist Workshop in the historic city of Dresden, once capital of the former Kingdom of Saxony and known as 'Florence on the Elbe'. The organisers are the Technische Universitat Dresden and King's College London, with support from the Sachsische Arbeitskreis Informationstechnik. The Workshop will address the theory, practice and potential applications of complex and chaotic behaviour arising from the non-linear dynamics of electronic systems, circuits and devices and will be held on 23rd and 24th July 1993. Contact: Section Chairman.

Prof. Dr.-Ing. Adolf J. Schwab, Kaiserstrasse 12, 7500 Karlsrühe 1, Germany. Tel: +49 721 608 2520 Fax: +49 721 69 5254

Bulgaria

(Section in Development) By Prof. Kolev

On December 16th 1992 a meeting of the members and potential members of the "Bulgarian Section in Development" was held; twentysix people attended. The Chairman, Prof. Kolev, presented. a detailed report on the activities and objectives of the organisation.

The participants in the constituent assembly discussed with great interest the issues of membership, subscription to specialist publications and the possibility of establishing contacts and sponsorship.

The following were elected as a Section Committee: Chairman - Prof. Kolev; Secretary - Dr. Tzankov; Treasurer -Mr. Marinov; Members - Prof. Sotirov, Mr. Taskov and Mr. Armyanov. The next meeting will be on 25th January 1993.

Swiss Federal Institute of Technology



Hawaii

November 15-19 1993

Centre de Conception de Circuits Intégrés (LEG/C3i) Invites you to the International Summer Courses on

FUZZY LOGIC : **VLSI Implementations and Applications** Lausanne, Switzerland, June 9 - 11, 1993

Course program : Introduction to Fuzzy sets & Fuzzy Logic theory **Applications of Fuzzy Logic CMOS VLSI implementation** Fuzzy systems simulation CMOS VLSI Fuzzy circuits design

Practical problem solving using FUZZÝ TECHNOLOGY Lausanne, Switzerland, June 9 - 25, 1993

Course program : Week I : Introduction to Fuzzy Logic theory Week II : Project formulation and solving Week III : Project simulation & Fuzzy ASIC design Week IV : Fuzzy chip testing (after manufacturing)

Course director : Prof. Daniel Mlynek Contact : Laurent Lemaître, EPFL-LEG/C3i EL-Ecublens, CH-1015 Lausanne Fax : +41-21-693 46 63 Phone: +41-21-693 69 78 Email : laurent_lemaitre@deqm.epfl.ch

Fellows 1993

By Professor E. Folke Bolinder

Austria

Siegfried Selberherr: For pioneering work in numerical analysis of semiconductor devices and their fabrication processes

Finland

Martti T. Hallikainen: For contributions in microwave remote sensing of forests, snow and sea ice

Teuvo K. Kohonen: For contributions to and leadership in the field of artificial neural networks and associative memories

France

Charles Maerfeld: For contributions to surface acoustic wave devices and their applications

Germany

Fritz A. Arndt: For contributions to fieldtheory analysis utilised in the design of passive microwave and millimeter-wave components

Gunter Dueck: For contributions to information theory.

Reimund Gerhard-Multhaupt: For contributions to the study of dielectric materials and their application in communication devices.

Edmund J. Handschin: For contributions to the education of electrical engineers and to the development of advanced mathematical methods for the optimisation of electric energy systems.

Joachim Holtz: For developments in electronic power conversion and ac drive control systems.

Wolfgang J.M.Keydel: For technical leadership in space-borne radar development and calibration.

Josef A. Nossek: For contributions to the design of discrete-time networks and for technical leadership in the development of radio communication systems

Hungary

Tamäs Roska: For contributions to the qualitative theory of nonlinear circuits and the theory and design of programmable cellular neural networks.

Israel

Boaz Porat: For contributions to the performance analysis of autoregressive moving-average parameter estimation algorithms and parametric spectral estimation techniques

Central & South Italy

Paolo Bernardi: For contributions to microwave interaction with biological systems

Ovidio M. Bucci: For contributions to the advancement of electromagnetic theory and antenna technology.

Roberto Tiberio: For contributions to the uniform theory of diffraction applied to antenna and scattering problems.

North Italy

Pier Paolo Civalleri: For contributions to the theory, analysis and synthesis of analog circuits with applications to wideband active and distributed systems, and for contributions to engineering education

Allesandro Clerici: For contributions to the analysis of transient overvoltages and the development of insulation coordination design concepts of high-voltage transmission lines

Orazio Svelto: For contributions to laser technology and to education in optics and lasers

Saudi Arabia

Mazen M.S. Abdel-Salam: For contributions to education in electrical engineering and to research in high-voltage engineering, and in the modelling of gas discharge phenomena

Spain

Rafael Portaencasa-Baeza. For institutional developments and leadership in computer sicence and engineering education, and for management of technological organisations

Sweden

S.Ake Ekström: For contributions to high-voltage direct-current transmission system design.

Wolfgang D. Lampe: For contributions to ac and dc insulation design of high-voltage transformers under polluted conditions.

Antonios E. Vlastós: For contributions to the understanding of ageing in non-ceramic insulators.

Switzerland

Martin J. Hasler: For contributions to research and teaching in nonlinear circuit theory.

United Kingdom & Republic of Ireland

Richard C. Foss: For leadership in the design and testing of memory circuits

Keith Glover: For contributions to robust controller design and model order reduction.

Michael J. Grimble: For contributions to advanced control techniques in industrial applications and the theory of robust and optimal control systems design.

Ebrahim H. Mamdani: For the development of fuzzy logic control methods.

John I. Sewell: For contributions to the analysis and synthesis of continuous-time and sampled-data signal-processing systems with associated C.A.D. techniques.

FOR STUDENTS,

By Gozde Bozdagi

In the first issue of 1993, I have some good news for you. A new project for students named S-PAVe (Student Professional Awareness Ventures), was proposed by Gerard Karam, the chair of the Subcommittee on Student Professional Awareness Activities of IEEE SAC (g.karam@ieee.org), and accepted a few months ago. All the branches will receive information in the near future but I want to say a few words about it.

The goals for the program are to develop prototype activities or materials which would enhance the awareness of Student Members to issues concerned with professionalism, to increase Student Membership, and to provide Student Branches with project planning and organization. Student Branches (or groups of



Branches) can propose a S-PAVe, using a standard form. Funds would be provided on a "matching basis". One can get up to \$200 without external funding, for the next \$300 (thus the maximum award is \$500) you require matching funds. e.g. if you have \$100 from someone else, you can request \$300. Funds not used should be returned. The proposals would be judged and awarded funds based on the degree to which they can achieve the goals, their viability, and the funding available. The first deadline to apply for S-PAVe is February 1, 1993.

The second news is about the Student Paper Contest. In 1993, it will be hold at CompEuro '93 Paris-Evry, France, May 24-27. This year the fund for this contest is raised from \$600 to \$1000.

Finally, I want to mention the e-mail list once more. If you are not yet included, add your student branch to the R8 student branch list by sending a message to Petri Solanti(pso@cs.tut.fi). Try to have an account for your branch beginning with "sb". This will provide the continuity of the list. Also in the near future, all the branches in the list will have an sb...@ieee.org adress too.

I wish you all a happy and successful new year.

Gozde Bozdagi, Region 8 Student Representative, Dept. of Elec. Eng., Bilknet Uni., 06533, Ankara, Turkey bozdagi@trbilun.bitnet



Intensive Summer Course Organized by

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

LOW-NOISE ANALOG AND MIXED-MODE IC DESIGN

JUNE 28 - JULY 2, 1993 Lausanne, Switzerland

Theory of Noise and Low-Noise (LN) Design	C. ENZ
Noise Models (MOS & Bipolar)	E. VITTOZ
Low-Noise Amplifiers (CMOS & Bipolar)	W. SANSEN
Noise in Sampled Data Systems	C. ENZ & G. TEMES
Partitioning Considerations in Mixed-Mode Designs	W. WILES
Isolation and Shielding Techniques in a Modern BiCMOS Process	W. WILES
Continuous-Time Filters vs SC Filters for Low-Noise Design	M. STEYAERT
Low-Noise Oscillators	E. HABEKOTTE
Low-noise Detector Interfaces	P. JARRON
Effects of Noise Coupling in Analog IC's	T. SCHMERBECK
Design Strategies for Reducing Noise Coupling in Mixed-Mode IC's.	T. SCHMERBECK
Simulation of substrate coupling in mixed-mode ICs	D. ALLSTOT
CAD Tools for Noise Simulation	D. ALLSTOT
LN Data Converter Design Techniques	M. CALLAHAN
Problems and Solutions for LN on Mixed-Mode IC's	M. CALLAHAN
Noise Topics and Tradeoffs in Practical Designs	P. BROKAW
Noise Issues in Voltage Reference Design	P. BROKAW

Deadline for registration : June 1, 1993 Registration fee in Swiss Francs: 2700,-Course directors: Michel Declercq, Gabor Temes, Vlado Valencic Special course coordinators: Willy Sansen, Tim Schmerbeck Mailing address : V. Valencic, EPFL-LEG, EL-ECUBLENS, 1015 Lausanne, Switzerland Phone : + 41-21-693.39.72(or 75) Fax : + 41-21-693.36.40

EPFL is member of the ESPRIT VLSI Design Action of the European Communities



Intensive Summer Course Organized by

 $Electronics \ Laboratory \\ of the Swiss Federal Institute of Technology (EPFL) \ Lausanne , Switzerland$

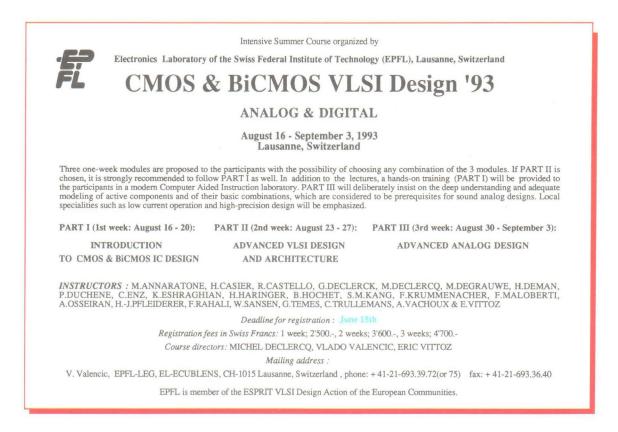
INTEGRATED A/D & D/A CONVERTERS

JULY 5-9, 1993 Lausanne, Switzerland

INTERFACE ICS: PAST, PRESENT AND FUTURE (P. GRAY) AN OVERVIEW OF A/D AND D/A TECHNIQUES (G. TEMES) BASIC BUILDING BLOCKS FOR CMOS DATA CONVERTERS (P. GRAY) HIGH-SPEED CMOS DATA CONVERTERS (P. GRAY) BUILDING BLOCKS FOR BIPOLAR DATA CONVERTERS (P. BROKAW) HIGH-SPEED BIPOLAR DATA CONVERTERS (R. VAN DE PLASSCHE) ACCURACY LIMITATIONS AND ACCURACY ENHANCEMENT TECHNIQUES IN DATA CONVERTERS (K. VALENCIC) CMOS CURRENT-MODE ANALOG SIGNAL PROCESSING STAGES AND DATA CONVERTERS (D. ALLSTOT) BIPOLAR CURRENT-MODE DATA CONVERTERS (H. SCHOUWENAARS) HIGH-SPEED CURRENT-MODE CMOS DATA CONVERTERS (J. DA FRANCA) OVERSAMPLED DATA CONVERTERS (G. TEMES) PRACTICAL DESIGN AND TESTING ISSUES (A. GANESAN)

Deadline for registration : June 1, 1993 Registration fee in Swiss Francs: 2'700.-Course directors: Michel Declercq, Gabor Temes, Vlado Valencic Mailing address : V. Valencic, EPFL-LEG, EL-ECUBLENS, 1015 Lausanne, Switzerland Phone : + 41-21-693.39.72(or 75) Fax : + 41-21-693.36.40

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FINLAND SECTION

By Mr. Aarno Lehtola and Mr. Jari Jokiniemi

NEW OFFICERS FOR 1993

The Section Annual Meeting was held on 17th December. The Executive Committee was nominated for 1993 as follows: Chairman Aarno Lehtola (tel.90-456 6032, e-mail aarno.lehtola@vtt.fi), Past Chairman Markku Oksanen (tel. 90-4512 263), Vice Chairman Mauri Inha (tel. 931-2830 111), Treasurer Iiro Hartimo (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.

The IEEE SB OULU has a new board. The new chairman is Paavo Leinonen. Student branch officers can be contacted best by sending e-mail to ieeesb@ee.oulu.fi

NEW FELLOWS

We are also glad to announce that two of our members have been elected to Fellow Grade. Prof. Martti T. Hallikainen from the Helsinki University of Technology "For contributions in microwave remote sensing of forests, snow, and sea ice". Prof. Teuvo K. Kohonen from the Helsinki University of Technology "For contributions to and leadership in the field of artificial neural networks and associative memories".

PAST EVENTS

The past year was successfull, our three Chapters being very active. The Computer Chapter and Section arranged a Symposium on Embedded and Real-Time Systems in November; there were 131 participants. A group of four Estonian participants was supported by the Section. As the symposium made some profit, we have now the opportunity to support professional meetings in the coming year - you aare invited to participate.

SECTION MEETING ON ADVANCED ENERGY TECHNOLOGIES

A professional Section meeting will be held on Friday, April 2nd, at 14.00. Place: Microchemistry Ltd (Mikrokemia Oy), Keilaranta 6, Espoo (next to Neste headquarters). Director of Research Peter Lund (from Helsinki University of Technology) presents the NEMO project. It studies wind, solar, and hydrogen energy technologies and new energy storage methodologies. The project is a large one, 15 million marks per year for six years, financed by the Energy Department of the Ministry of Trade and Industry. Solar and wind power systems of Neste Advanced Power Systems Corp. are also presented. Advance registration is desirable. Contact Jari Jokiniemi (tel. 90-456 6009), or Aarno Lehtola (tel. 90-456 6032).

Chapter Chairman: Mr. Arno Lehtola, Nuottakunnantie 3B9, SF-02230, Espoo, Finland. Tel: +358 0456 6032. Fax: +358 00804 3475

Region 8 IEEE Awards

By E. Folke Bolinder

IEEE Medal of Honor to: Karl Johan Âström FIEEE. Professor and Chair of Automatic Control, Lund University Sweden. For fundamental contributions to theory and applications of adaptive control technology"

IEEE Heinrich Herz Medal to: Kenneth G.Budden (Nonmember). Retired; Formerly Emeritus reader in Physics, Cavendish Laboratory, Cambridge, England. For major original contributions to the theory of electromagnetic waves in ionised media with applications to terrestrial and space communications"

IEEE Engineering Leadership Recognition to: Percy Barnevik (Non-member) - President and Chief Executive Officer, ABB Asea Brown Boveri Ltd, Zurich Switzerland. For "managerial leadership in creating a global enterprise in the areas of electric power apparatus and systems, transportation and environmental technologies"

IEEE Koji Kobayashi Computers and Communications Award to: Gottfried Ungerboeck (FIEEE - IBM Zürich Research A COMETT joint venture with: Chalmers University of Technology, Ericsson Radar Electronics and Western Sweden Partnership

"Packaging Technology for High Speed Circuits"

A 4 1/2 days course in Gothenburg, Sweden 10-14 May 1993

Main subjects

Introduction to high speed electronics

- Quality and test
- Thermal management
- Transmission line problems

Invited Speakers

- Dr Nihal Sinnadurai, UK
- Dr Per Danielsen, Denmark
- Other international experts
- Experts from Swedish companies

Further information can be obtained from: Sofia Ulin, Ericsson Radar Electronics AB S-431 84 Mölndal, Sweden, Phone: +46 31 673611 Telefax: +46 31 673783

Laboratory, Rüschlikon, Switzerland. "For contributions to signal processing for data communications, specifically for pioneering trellis-coded modulation"

IEEE Eli Lilly Award in Medical and Biological Engineering to: Max Anliker (Non-member). Director, Institute for Biomedical Engineering & Medical Information, Swiss Federal Institute of Technology, and University of Zürich, Zürich, Switzerland. "For five decades of outstanding achievements and contributions to biological engineering"

IEEE Control Systems Award to: Moshe M. Zakai (LFIEEE). Professor, Department of Electrical Engineering, Technion-Israel Institute of Technology, Haifa, Israel. "For contributions to non-linear stochastic analysis and its applications to control systems".

IEEE Masaru Ibuka Consumer Electronics Award to: George L. Brantingham (Non-member). Manager Consumer Components Design Centre, Texas Instruments Inc, Avezanno, Italy; and

Paul S. Breedlove (MIEEE) - Director, Worldwide Computer Research Segment, Texas Instruments, Dallas TX; and

Richard H. Wiggsin (MIEEE) Director Computer Research Centre, Texas Instruments Dallas TX.

"For pioneering contributions to consumer electronics products employing synthetic speech for education and entertainment".

IEEE Award in International Communication to: Pekka J. Tarjanne (Non-Member) - Secretary General, International Telecommunication Union, Geneva, Switzerland. "For his vision and leadership in restructuring and re-orientating the International Telecommunication Union to the new telecommunications environment.

IEEE Graduate Teaching Award to: Rudolf Saal (LFIEEE -Professor Emeritus of Electrical Engineering, Technische Universitaet Muenchen, Munich, Germany. "For inspired teaching, concerned guidance, and research supervision of electrical engineering graduate students"

NEW TITLES FROM WILEY

Using Formal Description Techniques An Introduction to ESTELLE, LOTOS and SDL

Edited by K.J. TURNER, University of Stirling, UK Formal Description Techniques (FDTs) have been developed for use in the formal description of Open Systems Interconnection (OSI) and other telecommunications services and protocols. This unique book covers a range of formal methods and introduces the three standardised FDTs - ESTELLE, LOTOS and SDL. These FDTs are explained from three viewpoints: basic concepts are introduced in tureinls, and enseting is illustrated

introduced in tutorials, good specification practice is illustrated with a range of examples and development methods and tools are discussed. 0-471-93455-0 460nn (cl) November 1992 £29 95/\$49 50

0-4/1-93433-0	400pp (CL)	rovember	1994	149.93/349.30
0-471-93843-2	(disk)	December	1992	£19.95/\$39.95

Satellite Communications Systems Second Edition

G. MARAL, Ecole Nationale Supérieure des Télécommunications, Toulouse, France, and M. BOUSQUET, Ecole Nationale Supérieure de l'Aeronautique et de l'Espace, Toulouse, France

Revised, updated and expanded, this *Second Edition* gives a detailed analysis of various satellite communications systems, demonstrates how the components interact within these systems and details the relationship between the system and its environment. From the techniques of orbital mechanics and radio wave propagation to the design of communication links and earth stations, the text covers the entire field of satellite communications engineering.

Wiley Series in Communications and Distributed Systems 0-471-93032-6 720pp (cl) January 1993 £65.00/\$107.00 0-471-93582-4 720pp (pr) January 1993 £29.95/\$49.50

Mobile Communications Design Fundamentals

Second Edition

WILLIAM C.Y. LEE

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(MTT/ED/AP Joint Chapter)

By Mr. Terry H. Oxley

Plans for 1993 include a series of lectures and a number of workshop/short course events. Some 1993 activities of broad international interest are summarised below:

19-21 April. Short Course on "Compound Semiconductor Device Modelling" organised by the University of Leeds in co-operation with the UKRI Chapter, at Harrowgate, North Yorkshire. Contact: Dr.R.E.Miles, Dept of Electronic & Electrical Engineering, The University of Leeds, Leeds LS2 9JT. Tel: +44 532 33 2081. Fax: +44 532 33 2032.

24th May. Workshop on "CAE. Modelling & Measurement Verification" organised with the MIOP Conference by the UKRI/ Germany/France/Italy Chapters, at Sindelfingen, Germany. UKRI Contact: Prof. J.A.C.Stewart, Dept of Electrical & Electronic Engineering, The Queens University of Belfast, Ashby Building, Stranmilllis Road, Belfast BT9 5AH. Tel: +44 232 24 5133. Fax: +44 232 667023.

6-7th July. Colloquium on Selected European Papers from the 1993 MTT-S International Microwave Symposium & MTT-S/ED-S Microwave and MM wave Monolithic Circuit Symposium, Atlanta U.S.A., at the University of Leeds. Contact: Prof. M.J.Howes, The University of Leeds, Leeds LS2 9JT. Tel: +44 532 33 2002. Fax: +44 532 33 2032

Autumn. Workshop on "High Performance Electron Devices for Microwave and Optoelectronic Applications". Jointly organised by King's College and UKRI chapter, at King's College, Strand, London. Contact: Dr. Ali A Rezazadeh, Dept of Electronic & Electrical Engineering, King's College Strand, London WC2R 2LS. Tel: +44 71 836 2879. Fax: +44 71 836 4781.

Chapter Chairman: Mr. Terry H. Oxley, "Tremont, Back Lane, Halam, Southwell, Newark, Notts. NG22 8AG, England Tel: +44 636 815510. Fax: +44 636 815 865



TURKEY

by Ayhan Altintas

I would like to start with my best wishes for 1993. Greetings to all of our members, and welcome to new members who have joined IEEE in 1993. Turkey Section has been growing rapidly in recent years in terms of membership and activities. Currently, there are 6 society chapters in Turkey and another one is in formation. Our student branches are especially very active and I would like to thank them for thein efforts. I hope their growing enthusiasm will

continue in 1993.

Some of the main activities of Turkey Section planned for 1993 are as follows:

- The organization of MELECON'94 in Antalya, Turkey in April 1994. (Contact: Prof. Yildirim Uctug, Middle East Technical University. Ankara, Turkey.)
- Cooperation in the organization of a National Workshop on Signal Processing in Istanbul in April 1993. Further information can be obtained from Prof. Enis Cetin, Signal Processing Society Chapter Chair, Bilkent University, Dept. EE, Ankara, Turkey.
- Cooperation in the organization of "First Bilkent International conference on Advanced Techniques in Animation, Rendering and Visualization" Bilkent University, Ankara, in July 1993. (Contact: ATARV'93, Bilkent University, Dept. Comp. Eng., Ankara, Turkey.)

Please feel free to contact me or any of our committee members for further information and we will be happy to hear from you. Best wishes,

Section Chair (Bilkent University, Dept. Elec. Eng., Ankara 06533, Turkey. Tel: 90-4-266-4040 Ext: 1489, Fax: 90-4-266-4127 E-mail: altintas@trbilun.bitnetor ieee@trbilun.bitnet)

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