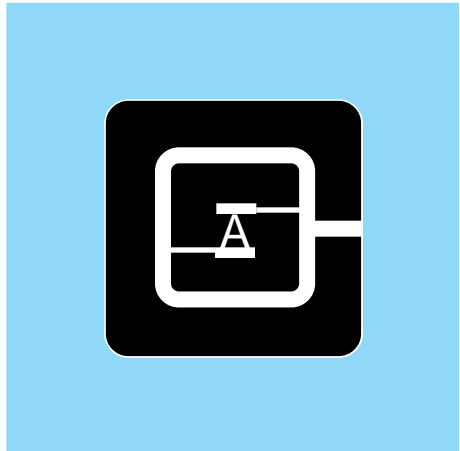




IEEE CIRCUITS AND SYSTEMS SOCIETY LETTER

Volume 7, Number 4, December 1996 ISSN 1049-3654



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SEPTEMBER

JUNE

MARCH

IEEE Circuits and Systems Society Newsletter

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J. Choma, *IEEE CAS II Transactions*
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M.-T. Sun, *IEEE Transactions on Video Technology*
D.W. Bouldin, *IEEE Transactions on VLSI Systems*
B.J. Sheu, *IEEE Circuits and Devices Magazine*

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W. Wolf, *1996 ICCD General Chairman*
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E.J. Yoffa, *1997 DAC General Chairman*
T.W. Rhee, *1996 APCCAS General Chairman*
M. Soderstrand, *1997 MWSCAS General Chairman*

ON TOWARD AN ON-LINE CAS SOCIETY...

World-wide circuit?

Michael K. Sain
Electrical Engineering
University of Notre Dame
Notre Dame, IN 46556



With this issue we have reinstated our column "Board of Governors' Corner", originated in an earlier volume by Pat Sain, who was also our principal crossword-puzzle person for several seasons. This issue's "corner" was written by Eric Kuehner, whose deft strokes with the Mac have produced numerous and ingenious

innovations for our CAS Newsletter in the current times.

It does of course take some time for the appearance of the minutes of a Board of Governors meeting. Thus, although the Fall meeting is done, the minutes are not yet available. So we thought to begin with the May meeting, and follow in our March 1997 issue with the November "corner".

When one peruses this three-page report, it is very apparent that the Circuits and Systems Society is moving into new and exciting waters. The appearance of CAS transactions in on-line form is a watershed event, by any standards. We cannot foresee, at this time, just how this idea will develop as time goes on. But we can certainly observe that this is an historic step.

At the same time, we continue to progress with our own page for the CAS Newsletter. If you have not yet visited us, be sure to do so at <http://www.nd.edu/~stjoseph/newscas/>. The issues of March, June, and September are now available for this year; and soon the rest of the volume will be added. Of course, for those who are in a position to reach our page, the Newsletter becomes available earlier than it does in hard copy.

The availability of the entire electronic issue presents new archival possibilities. For instance, the June 1996

issue on our page becomes a convenient reference for the awards winners mentioned by the narrative account appearing in this issue's "corner".

In recent times, readers have been enjoying our *The Adventures of... The 'Umble Ohm* cartoons courtesy of Shlomo Karni. Now comes a new cartoon contribution, courtesy of Paul Daniels. Does this herald a new era of circuit graphics? We shall have to wait and see.... In the meantime, a "tip o' the hat" to S.K. and P.D.

Along the lines of contributions, we have not yet found a replacement for Pat Sain and Cheryl Schrader, who originated our circuits crossword puzzle. Pat and Cheryl no longer have sufficient time to carry out this task. If any reader knows of someone who might wish to carry on this tradition, we would be interested in hearing more.

The international character of CAS is ever more and more evident. For instance, consider the "Fellow" stories for 1996, which conclude in this issue. We see herein a microcosm of our Society, and we see it active all over the globe. Know anyone who should be nominated for "Fellow"? Be sure to look at our instructions which appear in this issue, right after the '96 fellow reports.

How much longer can it be before our Society becomes a "world-wide circuit"? Is the price of paper stock going to drop? Login tomorrow....

THE ADVENTURES OF ...

...THE 'UMBLE OHM

...Shlomo Karni



Ohmbre wearing an ohmburg

BOARD OF GOVERNORS' CORNER

BOG Meeting Attendees

Society Officers:

Michael Lightner, *President*
John Choma, *President-Elect*
Chris Toumazou,
VP— Technical Activities
Hari Reddy, *VP—Conferences*
Rui de Figueiredo,
VP—Publications
Franco Maloberti, *VP—Region 8*
Paulo S.R. Diniz, *VP—Region 9*
Isao Shirakawa, *VP—Region 10*
Clifford Lau, *VP—Administration*
Ruey-wen Liu, *Past President*

BOG Members:

Geert De Veirman
Alfred E. Dunlop
Magdy Bayoumi
Alfred Fettweis
Jose da Franca
Ken Martin
Dieter Mlynski
Bing Sheu
Mani Soma
Robert Marks
Mona Zaghloul
George Moschytz
Graham Hellestrand

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Yi-Fang Huang, *DSP*
Mani Venkatasubramanian,
PS&PEC
Eby Friedman, *VLSI S&A*
Peter Pirsch, *VSP*

Chapter Chairs:

Doug Frey, *Lehigh Valley*
Alexander Dmitriev, *Russia*
Nobuo Fujii, *Tokyo*

Transactions Editors:

Josef Nossek, *TCAS—I*
Ming-Ting Sun, *TCSVT*

Conference Representatives:

Ming Liou, *ISCAS'97*
David Johnstone, *APCCAS*

Others:

Anthony Davies, *Region 8 CAS Chapter Coordinator*
Belle Sheno, *CAS Distinguished Lecturer Program Chair*
Jacek Zurada, *Neural Networks Council Representative*
C. H. Wei, *National Chiao Tung University, Taiwan*
Fadi Kurdahi, *University of California, Irvine*
Barbara Wehner, *CAS Administrative Assistant*

In an effort to keep the members of the Circuits and Systems Society better informed concerning the decisions and workings of their Society, we from time to time publish the minutes of our Board of Governors meetings as the "Board of Governors' Corner". It has been quite a while since the last such article, so we felt it is high time to resurrect this feature. The following is a report of the Board of Governors Meeting held during ISCAS'96 in Atlanta. It is based on the minutes of the meeting submitted by Barbara Wehner, Administrative Assistant, and Clifford Lau, Administrative Vice President.

Board of Governors Meeting Sunday, May 12, 1996

The May, 1996, Circuits and Systems Society Board of Governors Meeting was called to order by Michael Lightner, president of the Society. (A list of attendees is in the sidebar to the left.)

As the first order of business, Michael Lightner presented a brief background of choosing interim BOG members to replace those that have become officers, namely, Rui de Figueiredo and Clifford Lau. He then informed all in attendance that Magdy Bayoumi of the University of Southwestern Louisiana and Jose E. da Franca of the Instituto Superior Tecnico, Portugal, were the next two candidates in line, with the most votes in the general election, and who qualified as replacements. The matter was brought to a vote and M. Bayoumi and J. E. da Franca were unanimously approved as interim BOG members for 1996.

The next order of business was the approval of the Minutes of the November 5, 1995, meeting of the Board of Governors, which approval was unanimous.

The executive summary reports followed, beginning with the president's report. Michael Lightner first summarized the representation to the Solid-State Circuits Society. A detailed proposal was sent to the SSCC with an implementation of the representation structure. (This proposal can be found in the sidebar on page 6.) A discussion took place regarding the subject of the formation of the Solid-State Circuits Society and how it will affect CAS. A motion was made to have the Circuits and Systems Society cooperate fully with the SSCC to make a smooth transition and to ensure that common interests be pro-

moted. The motion passed unanimously.

Michael Lightner next mentioned that an agreement to co-sponsor the IEEE Design & Test Magazine has been worked out with Mario Barbacci, president of the IEEE Computer Society. The details had been reviewed by the Publications Division and the Executive Committee, and discussed and approved by the BOG in its last meeting.

Discussion next took place on the subject of the Student Design Contest. This contest was initiated by the Oxford University Press (OUP). OUP wants to co-sponsor the contest and name it in honor of Mac Van Valkenburg. The rationale, administration, design specifications, submissions and judging, and prizes and co-sponsorship issues were raised at the ExCom meeting. A motion to approve the design contest and allocate \$10,000 in 1997 passed unanimously.

In other news, Prof. Lightner stated that Stephen De Weerth of Georgia Tech has agreed to update the CAS homepage for the time being (which has since been moved to <http://www.eecs.uic.edu/~cas/> and is maintained by Barbara Wehner). Also, the CAS will support the Division 1 Initiative in Region 8 (Europe, Mid-East, Africa, (former) Soviet Union). And finally, Dr. Alexander Dmitriev of Russia was introduced and thanked for starting the Russian CAS Chapter. Dr. Dmitriev thanked the CAS Society for its cooperation during the establishment stages of the Russian chapter and looks forward to a mutually rewarding association.

For the past president's report, Ruey-wen Liu announced the societal awards. The listing of these awards and the recipients' names appeared in the June issue of the CAS Newsletter, which can be accessed on the web at <http://www.nd.edu/~stjoseph/newscas/>.

Under the Administrative Division report, Clifford Lau presented the financial status of the Circuits and Systems Society. (A chart of the Society's financial performance over the last several years is on page 6.) He also mentioned that this is one of the more wealthy societies within the IEEE. The Society's reserve is currently \$2.6 million. A note was made that the budget will be restructured so that each division will have its own budget. Dr. Lau informed the members that a number of factors have made the strong

ATLANTA: BOG MEETING REPORT

budget possible. First of all, much thanks goes to John Choma, past VP-Administration, for keeping a tight rein on the budget during the past two years. Secondly, DAC and other conferences have brought in a substantial amount of revenue. Finally, interest has accumulated from various investments.

The 1996 and proposed 1997 budget parameter changes in subscriptions were presented. A change in the proposed 1997 *TCAS—II* page count will be made to reflect 1,136 pages, same as *TCAS—I*, which was approved at a previous meeting. A motion was made to maintain non-member rates from 1996 to 1997 constant. Robert Marks opposed the above motion indicating that technical activities should be kept competitive. Discussion followed and the motion was defeated by a vote of seven to nine with one abstention. Michael Lightner will bring the issue of page charges to the VP-Administration with regard to financial obligations. He will ask the VP-Publications to examine the matter further.

In the Publications Division report, Rui de Figueiredo acknowledged the significant progress made by John Choma and *TCAS—II* in achieving focus on design via the Designer's Notebook section. Josef Nossek gave a presentation on the subject of speeding up the paper review process, and Randy Geiger spoke at length on the subject of electronic publishing.

The following action items were put forth by Professor de Figueiredo—approval to proceed with electronic publishing of the Society Transactions (including *VLSI Transactions*, if approved by co-sponsors) in both CD-ROM and Web format with a target publication date of January 1, 1997; and allocation in the Society 1997 budget of \$75,000 for Web start-up in cooperation with at least one other participating society, and \$36,000 for covering the fixed cost of CD-ROM media. A motion to approve the \$111,000 for this venture was made and passed by a vote of eighteen to one with one abstention. This approval is contingent upon at least one participating society joining CAS in this initiative.

Professor de Figueiredo also reported on the Publications Division's effort in creating an across-the-Society on-line archival electronic journal called the *CAS Express Letters*. An *Express Letters* committee has been formed consisting of the following individu-

als: Rui de Figueiredo (ex-officio), Randall Geiger, Fadi Kurdahi, chair, Ruey-wen Liu, Edgar Sanchez-Sinencio, and Chris Toumazou. A proposal was presented by the above committee to the BOG for approval. A motion was made that the proposal contain an amendment with the following statement: "This proposal must have a paper version." The amendment carried with a vote of sixteen to six. A charge was made to the committee that it has certain parameters to work with and report back to the BOG. The committee has been instructed to address the various issues that were expressed at the meeting. A motion was made to approve the *CAS Express Letters* Committee and allocate \$5,000 to the committee to use as it begins its mission. The committee will then present its outcome/findings to the BOG in November. The motion passed with a vote of eighteen to zero.

Finally, Rui de Figueiredo presented a proposal for CAS co-sponsorship of a special issue on multimedia of the *IEEE Transactions on Education*. A motion on this proposal passed with a vote of eighteen to zero with one abstention. This has since been published.

In the Conference Division report, Hari Reddy, Vice President for Conferences, summarized the activities of the Conference Division. He also provided some statistics on ISCAS'96: pre-registration on May 10, 1996, was at 778, on-site registration was expected to be about 100, total projected attendance should be 950–1,000. He also mentioned that the Circuits and Systems Society had a \$350,000 conference surplus for the year

... Continued on Page 6

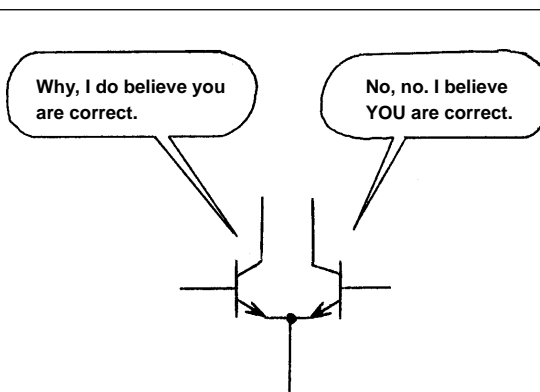
BOG Election Results

As you know, a ballot for the election of five members to the IEEE Circuits and Systems Society Board of Governors was issued on August 2, 1996. The votes have been counted, and the following candidates have been elected to serve for a three-year term beginning January 1, 1997.

Magdy A. Bayoumi
José Epifanio da Franca
Patricia D. Daniels
Ibrahim N. Hajj
Peter Pirsch

We wish the newly elected members of the Board of Governors success and thank all candidates for their willingness to serve and for permitting their names to be included on the ballot.

—Robert T. Wangemann
Managing Director
IEEE Technical Activities



The Deferential Pair

Cartoon

(inspired by
'The Adventures of
the 'Umble Ohm')

by Paul J. Daniels

BOG MEETING (CONT.)

Proposal for Representation with the Solid-State Circuit Society

The Circuits and Systems Society and the Solid-State Circuits Council, which formally becomes the Solid State Circuits Society in 1999, recognizing their joint technical interests, historical roots, and the interests of their members, propose the following administrative structure in the hope of ensuring that their common intellectual interests are promoted. The implementation of this structure, or a suitably modified version thereof, is to be delineated in the by-laws of each organization. The goal of this proposal is to ensure that a qualified representative, nominated by the represented society and elected by the other society, will serve both organizations with maximal effectiveness.

Each society will have one elected representative of the other society on its administrative committee. This representative will have full voting privileges in the society for which he or she serves as a representative. The implementation of this structure can potentially mirror the following guidelines.

- 1) Each society will nominate two of its members as potential representatives to the other society. Each nominee must be a member of both societies.
- 2) The elected nominee will have a non-voting seat on the administrative committee of the nominating society.
- 3) The nominees will be placed on the normal ballot for the administrative committee elections and identified therein as an inter-society representative.
- 4) The nominee chosen in the election will serve as inter-society representative, with term of office which mirrors the standard term in the society for which he or she serves as a representative.
- 5) During the term of service, the representative will hold no other voting position in either society.

—Michael Lightner

1995. Professor Reddy then announced that the ISCAS Steering Committee would meet on Wednesday, May 15. Proposals to host ISCAS'2000 were received from Australia, Spain, Italy, and Switzerland. A decision on the ISCAS'2000 site is expected to be made at the Steering Committee meeting. A straw vote to consider changing the rotation of ISCAS for the year 2000 was inconclusive and was forwarded to the Conference Division for further discussion.

John Choma, president-elect and chair of the Regional Activities Division, began the Regional Activities report by saying that there are many inactive chapters/chapter chairs. He will study the problem and, hopefully, provide some solutions to get the chapters active again. He also emphasized the availability of chapter start-up awards.

Franco Maloberti, Paulo Diniz and Isao Shirakawa each gave reports on the activities in their regions, including conferences, new chapters, and proposed new chapters. Professor Shirakawa announced that APCCAS'98 will be held in Thailand. Professor Lightner then expressed great appreciation to all the regional vice presidents for their hard work and effort. He commented that the CAS is an international society and their help is extremely valuable.

For the final committee report, Chris Toumazou, Vice-President for Technical Activities, presented a brief summary of the Technical Activities Division. (A meeting of the Technical Activities Division and all the technical committee chairs met the following Monday evening, May 13.) Professor Toumazou noted that two of the technical committees now have web pages. They are: the ASP-TC at <http://www.macs.ee.mcgill.ca/~roberts/>, and the NCS-TC at <http://diva.eecs.berkeley.edu/~ljilja/tcnas/tncas.html>. He also provided detailed activity reports from the various technical committees.

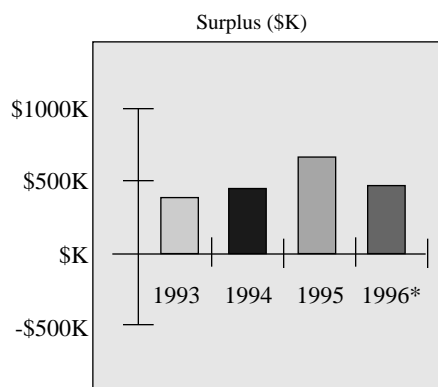
Under new business, Michael Lightner informed the Board that the position of the Administrative Assistant (Barbara Wehner) will be increased to 50% effective immediately and the difference in the salary increase added to the 1997 budget.

Also under new business, Ruey-wen Liu gave a presentation on the Keynote Speakers Program. The impact of the program would be tremendous and it would also make the Society more visible. It is limited to sponsored and co-sponsored conferences and workshops only. A motion to approve the CAS Keynote Speakers Program, with an allocation of \$30,000 in 1997, carried.

Clifford Lau then reported on the budget implications of all preceding BOG actions which totaled \$50,000. This additional \$50K of expenses decreases the projected surplus for 1996 to \$360K, with a projected surplus for 1997 of \$230,000.

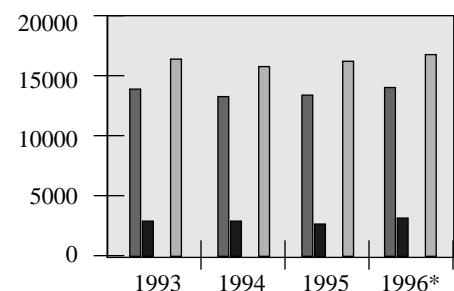
The meeting was adjourned with the next meeting of the Board of Governors to be held on November 10, 1996, at the Red Lion Hotel in San Jose, California, during ICCAD.

Circuits and Systems Society
Financial Performance



	1993	1994	1995	1996*
Surplus (\$K)	\$373.3	\$467.4	\$685.1	\$475.1

Circuits and Systems Society
Membership Statistics



	1993	1994	1995	1996*
Members	13,736	13,027	13,319	13,871
Students	2,677	2,751	2,641	2,815
Others	19	18	28	18
Total	16,432	15,796	15,988	16,704

* Budgeted

VLSI & DESIGN AUTOMATION

New T-VLSI Editor

Bing Sheu has been appointed as the new editor for the *IEEE Transactions on VLSI Systems* for a period of two years beginning January 1, 1997, taking over for Don Bouldin whose term expires at the end of this year.



1997 IEEE Workshop on SIGNAL PROCESSING SYSTEMS (*S&PS*)

Design and Implementation

formally IEEE Workshop on VLSI Signal Processing



IEEE Design and Implementation of Signal Processing Systems

S&PS
97

An Annual Activity of the :
IEEE Signal Processing Society Technical Committee on the
and now jointly co-sponsored for the first time by
IEEE Circuits and Systems Society Technical Committee on

VLSI Systems and Applications



In cooperation with

Circuits and Systems Society Technical Committee on **Multimedia Systems and Applications**

Signal Processing Society Technical Committee on **Multimedia Signal Processing**

November 3-5, De Montfort University, Leicester, UK

The objective of this workshop is to provide a forum for discussion of new developments in the design and implementation of Signal Processing Systems including *VLSI and Systems Technology, DSP Technology, and Applications*. A hard-bound proceedings of the workshop will be published.

Workshop Theme: "Multimedia Systems on a Chip" has been selected as the major theme of the workshop and will be highlighted in invited talks and panel discussion. For more information on the schedule (deadline for paper submission is April 1, 1997) and other details for the Call For Papers please visit our web site at:

<http://www.eng.dmu.ac.uk/~mki/sips97/>

or contact the general chair **Mohammad Ibrahim** (email: mki@dmu.ac.uk).

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DESIGN TOOLS: Stanford Univ.

TECHNICAL PROGRAM CO-CHAIR, **Jan Rabaey**
DESIGN METHODS: Univ. of California

CONFERENCE MANAGER: P.O. Pistilli
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<http://www.dac.com>

IEEE CAS FELLOW PROFILES 1996

James H. Aylor

For developments in the use of computer technology for persons with disabilities.

James H. Aylor received the B.S., M.S., and Ph.D. degrees in electrical engineering from the University of Virginia, Charlottesville, Virginia, in 1968, 1971, and 1977, respectively. He has been involved in all aspects of the digital design process for over 20 years. He has directed work in the areas of system-level modeling, concurrent error detection, automatic test pattern generation, hardware description languages, Very Large Scale Integration (VLSI) system design, and computer technology for persons with disabilities.

Dr. Aylor is professor and chair of electrical engineering at the University of Virginia. He was instrumental in the founding of the Center of Semicustom Integrated Systems within the School of Engineering and Applied Science in 1984 and served as its first director until 1996.

Under his direction, the Center was established as a Technology Development Center of the Virginia Center for Innovative Technology (VCIT) in 1986. The Center, consisting of over 15 faculty and staff, is focused on the design and implementation of complex electronic systems. From 1982 through 1983, he was a visiting scientist with IBM Federal Systems Division and participated in their VHSIC program and in the development of the VHSIC Hardware Description language (VHDL). He has also been extremely active in professional activities both in technical and administrative capacities. In 1993, he served as the president of the IEEE Computer Society. He is currently a division director within IEEE representing the Computer Society. He has been with the University of Virginia since 1978.



James H.
Aylor

Wayne C. Luplow

For leadership in establishing the terrestrial broadcast system of digital high definition television for North America.

Wayne C. Luplow has been vice president, consumer products engineering, large-screen and HDTV, for Zenith Electronics Corporation since December 1994.

Mr. Luplow earned the B.S. degree in electrical engineering from the University of Wisconsin in 1962 and the M.S. degree in electrical engineering, from the University of Pennsylvania in 1964. Before joining Zenith in 1964 as a research engineer, he was employed by RCA at the David Sarnoff Research Laboratories in Princeton, New Jersey. Prior to his current position, he was vice president, consumer electronics engineering beginning in November 1993. Since May 1993, Luplow has been Zenith's primary technical representative in the "Digital HDTV Grand Alliance." His experience includes eight years as head of the company's HDTV research program, which included

leading the Zenith-AT&T technical team that developed the original "Digital Spectrum Compatible" HDTV system.

In conjunction with his Zenith responsibilities, Mr. Luplow is active in industry-wide HDTV activities, including the executive committee of the Advanced Television Systems Committee (ATSC), the HDTV Model Station, and various efforts of the Electronic Industries Association (EIA) and its Consumer Electronics Manufacturers Association sector (CEMA).

Luplow serves as editor of the *IEEE Transactions on Consumer Electronics* and has contributed articles to *Transactions*, *IEEE Spectrum* and other publications. He also is an elected member of the administrative committee of IEEE's Consumer Electronics Society and has been publication chairman for the committee since 1976.



Wayne C.
Luplow

CIRCUITS AND SYSTEMS SOCIETY MEMBERS

Angel B. Rodríguez-Vázquez

For contributions to the design and applications of analog/digital nonlinear ICs.

Angel Rodríguez-Vázquez received the Licenciado en Ciencias Físicas degree in 1977 and the degree of Doctor in Física-Electrónica in 1983, from the University of Seville, Spain. Since 1978 he has been with the Department of Electronics and Electromagnetism at the University of Seville. In 1989 he joined the research staff of the Department of Analog Circuit Design of the Spanish Microelectronics Center where he is currently professor of electronics and head of a research group on analog VLSI.

He has research interests in the design of analog and mixed-signal VLSI circuits for nonlinear signal processing, including vision chips, neuro-fuzzy controllers and chaotic circuits. His work in these areas has resulted in systematic design methodologies to design these kinds of chips. He also has interest in the

design and modeling of data converters with emphasis on $\Sigma\Delta$ techniques, symbolic analysis of analog integrated circuits, and optimization of analog integrated circuits. In particular, his work in this area has resulted in one of the first marketable symbolic analyzers.

Dr. Rodríguez-Vázquez has authored or co-authored about 150 publications. He was co-recipient of the CAS 1995 Guillemin-Cauer award, and the best paper award of the 1995 European Conference on Circuit Theory and Design. In 1992 he also received the young scientist award of the Seville Academy of Science. He has been a member of a number of technical program committees and has served as associate editor and guest editor for *IEEE Transactions on Circuits and Systems—II* and the IEEE Press.



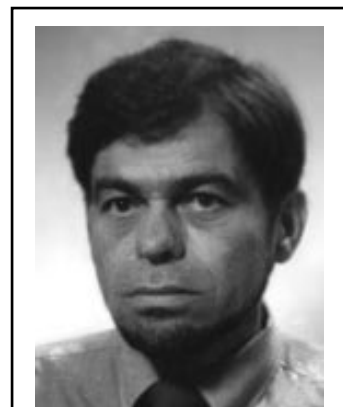
Angel B.
Rodríguez-Vázquez

Ed F. Deprettere

For contributions in algorithm and architecture design for adaptive signal processing.

Ed F. Deprettere was born in Roeselare, Belgium, on August 10, 1944. He received the M.Sc. degree from the Ghent State University, Ghent, Belgium, in 1968, and the Ph.D. Degree from Delft University of Technology, Delft, The Netherlands, in 1981. In 1970, he became a research assistant and lecturer at the DUT, where he is now professor in the Department of Electrical Engineering, in the circuits and systems section of the signal processing group. His current research interests are in modern signal processing: algorithms, VLSI architectures and applications, and in methodologies for the mapping of parallel signal processing algorithms, net-

work graphs and numerical computations onto silicon. He is editor of the books *SVD and Signal Processing: Algorithms, Architectures and Applications* and *Algorithms and Parallel VLSI Architectures*. He is on the editorial board of the *IEEE Transactions on Circuits and Systems*, the *Journal of VLSI Signal Processing and Integration*, the *VLSI Journal*. He co-authored a paper that received a 1989 IEEE Signal Processing award and another one that received a 1995 IEEE Signal Processing award. He was a guest professor with Philips Research, Eindhoven, The Netherlands, from September 1, 1993, to September 30, 1994.



Ed F.
Deprettere

IEEE CAS FELLOW PROFILES 1996

Neil H. E. Weste

For contributions to the methods of design of full custom integrated circuits.



Neil H. E.
Weste

Neil Weste received the B.Sc., B.E. (Elec) and Ph.D. degrees from the University of Adelaide in 1973, 1974, and 1978, respectively. He completed part of his Ph.D. studies at the University of Edinburgh. He joined Bell Laboratories in 1977 where he developed MULGA, an early example of an integrated symbolic IC design tool which combined structural design, symbolic cell layout design, chip level layout, timing simulation and characterization into a single unified design flow implemented on a workstation. In 1981 he spent a year at Duke University, UNC (Chapel Hill) and the Microelectronics Centre of North Carolina, returning to Bell Laboratories in 1982.

His contributions to IC design continued at Symbolics Inc., where he led the team that developed the Ivory Lisp processor. Following this, he co-founded TLW

Inc., an IC design house where he co-designed a number of complex chips for TV ghost cancellation, video decompression and other communications areas.

In 1995 he joined the Electronics Department at Macquarie University, Sydney, Australia as Professor of Microelectronic Systems where he is currently working on signal processing for low cost, high bandwidth, millimeter-wave, wireless local area networks.

Dr. Weste co-authored *Principles of CMOS VLSI Design — A Systems Perspective* a popular VLSI design text which was published in 1984 and revised in 1994. He holds several patents in the area of video RAMs and systolic architectures and has published over 30 conference and journal papers. He received the Best Paper award at the 1981 Design Automation Conference.

Radek M. Biernacki

For contributions to the theory and implementation of microwave and analog CAD technology.



Radek M.
Biernacki

Radek M. Biernacki was born and studied in Poland. He received the Ph.D. degree from the Warsaw University of Technology in 1976. He joined Optimization Systems Associates, Inc. (OSA), Dundas, Ontario, Canada, in 1986, where he is currently vice president of research and development. He has been a major contributor to the development of OSA's commercial CAE software systems, and related research. He is internationally recognized for his contributions to microwave CAD, effective algorithms for simulation and optimization, including yield-driven design of linear and nonlinear analog circuits, response modeling, statistical device modeling, electromagnetic design optimization, as well as fault diagnosis of

analog circuits. He has also contributed to the field of robust control. He has published about 100 papers.

Dr. Biernacki has held academic positions at the Warsaw University of Technology, Poland; Texas A&M University, College Station; and McMaster University, Hamilton, Canada, where he is currently a part-time professor in the Department of Electrical and Computer Engineering and conducts research in the Simulation Optimization Systems Research Laboratory. He is a participant in the Micronet Network of Centres of Excellence (Natural Sciences and Engineering Research Council of Canada). He has been the recipient of several prizes for his research and teaching activities.

CIRCUITS AND SYSTEMS SOCIETY MEMBERS

Che-Ho Wei

For contributions to circuits and systems for communications and signal processing.

Che-Ho Wei was born in Taiwan, R.O.C., in 1946. He received the B.S. and M.S. degrees in electronic engineering from National Chiao Tung University, Hsin Chu, Taiwan, in 1968 and 1970, respectively, and the Ph.D. degree in electrical engineering from the University of Washington, Seattle, in 1976.

From 1976 to 1979, he was an associate professor at National Chiao Tung University, where he is now professor and dean of the College of Electrical Engineering and Computer Science. He was on leave at the Ministry of Education and served as the

director of the Advisory Office from September 1990 to July 1992.

Dr. Wei was the founding chairman of both the IEEE Circuits and Systems chapter and the IEEE Communications chapter in Taipei. He was a member of the Board of Governors, IEEE Circuits and Systems Society, from 1992–1994. He received the Distinguished Research Award from the National Science Council, R.O.C. in 1990–1996. His research interests include digital communications and signal processing, and related VLSI circuits design.



Che-Ho Wei

Fellow Nominations Due

The IEEE Bylaws define the Fellow grade as one of unusual distinction in the profession, to be conferred only by the invitation of the Board of Directors upon a person of outstanding and extraordinary qualifications and experience in IEEE designated fields (including electrical engineering, electronics, computer engineering and computer sciences, and the allied branches of engineering and related arts and sciences), who has made important individual contributions to one or more of these fields. A nominee must be a Senior Member of the Institute, and have been a member in any grade for at least five years prior to January 1 of the year of election.

The Fellow Committee will consider brief letters of endorsement from IEEE Sections, Chapters, and Committees. In the processing by the Fellow Committee, the candidates' dossiers are evaluated on a basis of eight criteria: 1) Individual contributions as engineer, scientist, originator, technical leader or educator; 2) Evaluation by an IEEE Society; 3) Tangible and verifiable evidence of technical accomplishment, such as technical publications, patents, reports, or published descriptions of products, facilities, and/or service; 4) Opinions of confidential Fellow references who know of the work of the candidate personally (where possible, these should be associated with other than the candidate's own organization); 5) Service to IEEE and its predecessors, the AIEE or IRE; 6) Professional engineering service other than the IEEE; 7) Opinions of endorsers; and 8) Total years in the profession.

An IEEE Fellow Nomination Kit may be obtained from the IEEE Fellow Committee, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, Tel: (908) 562-3844, Fax (908) 981-9019. All completed forms for Fellow nominations must be received by the Fellow Committee no later than April 15, 1997.

The CAS Awards Committee can provide assistance in obtaining Fellow grade references. Contact Professor Michael Lightner, CAS Fellow Awards Committee, Department of Electrical and Computer Engineering, University of Colorado, Campus Box 425, Boulder, CO 80309, Tel: (303) 492-5180, Fax: (303) 492-2758.

You may help determine whose picture will be here next year by sending in your suggestion. See the article to the left.

Next Year's Fellow

PROGRESS REPORT ON ISCAS'97

Time is drawing near for the 1997 IEEE International Symposium on Circuits and Systems, held June 9-12, 1997, and the preparations for the conference are being finalized. This report is an update of several important issues for the conference.

Technical Track Chairs

The Technical Program Committee has announced the track chairs for ISCAS'97. The eight technical tracks and the names of chairmen for them, along with their associated universities, are:

1. *Analog Circuits and Signal Processing*—Dr. David D.G. Haigh, Department of Electronic & Electrical Engineering, University College, London University, UK

2. *Circuit Theory and Power Systems*—Prof. Shinsaku Mori, Department of Electrical Engineering, Keio University, Japan;

3. *Communication and Multimedia*—Prof. Weiping Li, Department of Electrical Engineering & Computer Science, Lehigh University, USA

4. *Computer Aided Design*—Prof. Steven Kang, Department of Electrical & Computer Engineering, The University of Illinois at Urbana-Champaign, USA

5. *Digital Signal Processing*—Dr. Yong-Ching Lim, Department of Electrical Engineering, National University of Singapore, Singapore

6. *Neural Systems*—Prof. Jacek M. Zurada, Department of Electrical Engineering, University of Louisville, USA

7. *VLSI*—Prof. Eby G. Friedman, Department of Electrical Engineering, University of Rochester, USA

8. *Industrial Applications*—Prof. Wan-Chi Siu, Department of Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong

Short Courses

There will be six short courses. Each of them is a half-day course. The titles of the short courses are: "MPEG-4 Video Coding Standard", "Design for Test of Analog and Mixed-Signal Circuits", "High Performance VLSI Signal and Video Processors", "Multimedia Technologies and Applications", "High Speed VLSI Interconnects", and "Circuit Simulation Based on Wavelet Method".

Brief Summary of Submitted Papers

The period for submitting papers to ISCAS'97 is now over. Gratefully, not even the requirements of submitting photo-ready manuscripts have affected the number of submissions: over one thousand camera-ready papers have been received by the Technical Program Committee. About half of the submitted papers come from America and Europe, while the other half are mainly from Asia. A total of 43 countries have submitted papers to this Symposium. This response has been very exciting, and we look forward to seeing a large number of participants joining this important Symposium.

Total number of submitted papers:	1007
(i) Paper Area	No. of Papers
1. Analog Circuits and Signal Processing	175
2. Circuit Theory and Power Systems	111
3. Communication and Multimedia	153
4. Computer Aided Design	117
5. Digital Signal Processing	209
6. Neural Systems	60
7. VLSI	133
8. Industrial Applications	44

(ii) Source of Papers	No. of Papers
Hong Kong	98
America (North & South)	227
Europe	255
Australia	26
Africa	1
China	63
Japan	125
Korea	55
Taiwan, China	103
Asia (except Hong Kong, China, Japan, Korea, Taiwan (China))	57

Hotel and Travel Information

Since Hong Kong will become the Special Administrative Region (SAR) of PR China on July 1, 1997, a lot of people are interested to travel to Hong Kong in June/July 1997. Therefore, we advise members intending to attend ISCAS'97 to book flights to Hong Kong as early as possible.

The ISCAS'97 Organizing Committee has appointed Morning Star Travel Service Ltd as a local agent for accommodation arrangement. For your information, Morning Star currently has over 770 rooms under its control during the conference period. The price ranges from HK\$828 to HK\$2933 (including service charges, current exchange rate is about US\$1 = HK\$7.75). Hotel information is available from the ISCAS'97 home page, and reservation form is attached with the conference registration form.

Call For Participation

Hong Kong is one of the most dynamic cities in the world with world-class facilities, easy accessibility, exciting entertainment, high levels of services, professionalism and industries.

We are inviting publishers, EDA vendors, computer industries, educational and technical software vendors to introduce their newest products and texts in this exciting event.

If you are interested, please contact: Angus Wu, Department of Electronic Engineering, City University of Hong Kong, Tat Chee Ave., Kowloon, Hong Kong; Phone: (852) 2788-9391; Fax: (852) 2788-7791; E-mail: eeawueed@cityu.edu.hk

— Richard M. Chen

INTERNATIONAL CONFERENCES . . .

EDAC - ETC - ASIC



EUROPEAN & DESIGN & TEST 1997 CONFERENCE and EXHIBITION march 17/20

Paris, France

CALL FOR CAD DEMOS

A University Booth will be organized for CAD software and hardware demonstrations during ED&TC 97, March 17-20, at CNIT, Paris-La Defense.

An application form is available from the support center. Please e-mail to: louerat@masi.ibp.fr

All Other Inquiries to

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Fax: +44-131-300 3400

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Exhibition Secretariat:

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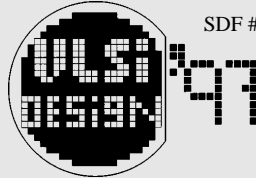
The Tenth International Conference on VLSI Design

January 4-7, 1997

Hyderabad, India

Theme: VLSI in Multimedia Applications

For complete information
please contact Publicity
Chairs.



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ASP-DAC '97

Asia and South Pacific Design Automation Conference 1997
with EDA TechnoFair '97

Jan. 28 - 31, 1997

Makuhari Messe, Chiba, JAPAN

The goal of the meeting of ASP-DAC '97 is to provide a forum for presentation, discussion, and observation of the state-of-the-art of Design Automation (DA) and Design Methodology of electric systems.

Conference Secretariat:

CONVEX Inc.

Ichijoji Building 2-3-22 Azabudai, Minato-ku, Tokyo 106, JAPAN

Tel: +81-3-3589-3355; Fax: +81-3-3589-3974

E-mail: convex@po.ijnet.or.jp

ASP-DAC '97 Homepage

<http://www.ieice.or.jp/callforpapers/ASPDAC/>

/// CALL FOR PAPERS ///

1997 IEEE Workshop on Nonlinear Signal and Image Processing

September 7-11, 1997 *Grand Hotel, Mackinac Island, Michigan*

The workshop will be a forum for the presentation and discussion of the most recent work in the area of nonlinear signal and image processing. Participation in the workshop will be by both invitation and application. The size of the workshop will be limited in order to encourage interaction of the participants.

tentative schedule for authors:

January 15, 1997 — submission of two-page summary

March 30, 1997 — notification of acceptance

June 15, 1997 — receipt of camera-ready paper

To obtain further information about the workshop please contact: Prof. Edward J. Coyle, School of Electrical and Computer Engineering, Purdue University, 1285 EE Building, West Lafayette, IN 47907-1285; tel: 317/494-3470; fax 317/494-3358; coyle@ecn.purdue.edu.

Workshop information is available at:

<http://www.ecn.purdue.edu/conferences/nsip>



April 14-16, 1997 *Napa Valley, California*

The International Symposium on Physical Design provides a forum to exchange ideas and promote research on critical areas related to the physical design of VLSI systems.

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Symposium Information:

To obtain information regarding the Symposium or to be added to the Symposium mailing list, please send e-mail to ispd97@cs.virginia.edu.

Information can also be found on the ISPD-97 web page: <http://www.cs.virginia.edu/~ispd97/>

... CALLS FOR PAPERS, PARTICIPATION

Visual Communications and Image Processing

Part of IS&T/SPIE's 1997 Symposium on Electronic Imaging: Science & Technology
San Jose Convention Center February 8-14, 1997 San Jose, California

Visual communication has become an important engineering area that attracts interdisciplinary research interest and has led to significant developments in technology and science. This conference is designed as a forum for presenting important research results.

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Hsin-chu, 300-50 Taiwan
Fax: 886 35 723283
hmhang@cc.nctu.edu.tw

SPIE Web site:

http://www.spie.org/web/meetings/calls/pw97/pw97call_viscomm.html



IEEE International Solid-State Circuits Conference

San Francisco Marriott Hotel
Thursday – Saturday

San Francisco, CA
February 6–8, 1997

The 1997 Conference theme is **Multimedia**

Conference Operations are handled by:

Diane Suiters, Courtesy Associates
655 Fifteenth St., NW, Suite 300, Washington, DC 20005, USA
Tel: 202/639-4255; Fax: 202/347-6109
Email: isscc@mcimail.com

For further information, the ISSCC'97 Web page is:
http://www_sssc.eecg.toronto.edu/isscc/

EEIC97/ICIGEC'97

IEEE International Conference on Evolutionary Computation
EPS Evolutionary Programming Conference

Indianapolis, Indiana, U.S.A.
April 13–16, 1997

Sponsored by:
IEEE Neural Networks Council and the
Evolutionary Programming Society

For information contact:

Russ Eberhart
Purdue School of Engineering and Technology
799 West Michigan Street
Indianapolis, IN 46202-5160 USA
317-278-0255
http://www.engr.iupui.edu/et/ieec_con.htm

Pete Angeline
Lockheed Martin Federal Systems
1801 State Route 17C
Owego, NY 13827-3998 USA
607-751-4109

The Seventh

Great Lakes Symposium
on VLSI
March 13–15, 1997
Urbana-Champaign
Illinois

GLS-VLSI 1997 is seventh in a series of symposiums exploring the recent progress in VLSI circuits and systems design. The symposium addresses all aspects of design, test and validation of micro-electronics based systems.

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Please mail your submission packet to:
Professor Farid Najm, GLS-VLSI'97
209 C&SRL University of Illinois
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Fax: (217) 244-1946
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==== CALL FOR PAPERS ====

NICROSP'97

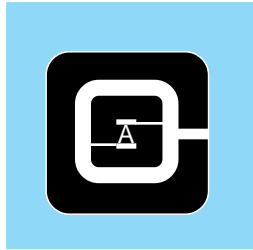
1997 International Workshop on Neural Networks for Identification,
Control, Robotics, and Signal/Image Processing
Act-City Hamamatsu Convention Center, Hamamatsu, Japan
October 6–8, 1997

Deadline for Submission: **March 31, 1997**
Acceptance Notification: **June 1, 1997**
Camera-ready manuscripts due: **July 31, 1997**

For further information, contact:

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Research Institute of Electronics, Shizuoka University
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Tel: +81 (53) 478-1326
Fax: +81 (53) 478-1326
E-mail: watanabe-k@rie.shizuoka.ac.jp

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