

IEEE

Solid-State Circuits Society



Newsletter

Volume 2 Number 2

April 1997



Robert G. Swartz
President
IEEE Solid-State Circuits Society
rgswartz@vis-a.com

Message From The President

IEEE Solid-State Circuits Society

The Solid-State Circuits Society is off to a rousing start. The latest data (as of 2/28/97 - not counting new members enrolled at ISSCC) from the IEEE indicate that there are a total of 8,616 members of our Society. Moreover, 941 of these are students members, which bodes well for the future health of our profession. The financial pulse of our Society is also strong, with SSCS reserves now standing at about \$2M. These reserves, accumulated slowly over the past 2+ decades under the stewardship of the Solid-State Circuits Council, will be used as needed to fund the start-up activities of our Society.

The Society held two very successful promotional activities at ISSCC last February. The first was a membership offer to anyone attending the ISSCC who registered as a non-IEEE member. Our offer was a free six-month membership in the IEEE and the Solid-State Circuits Society, complete with a six-month subscription to the IEEE Journal of Solid-State Circuits, the SSCS Newsletter, the IEEE Spectrum and Institute. Altogether, over 400 attendees took advantage of this offer.

Hopefully, the IEEE is processing away, and by the time

Institute of Electrical and Electronics Engineers, Inc.

you see this Newsletter, we will have welcomed you officially into the IEEE. The second promotion was co-sponsorship with the ISSCC of a Social to celebrate our Society's inauguration. All attendees of the ISSCC were invited to attend, tasty foods and drinks were served, and attendance topped 1500. As I circulated through the hall, I saw lots of convivial people engaged in spirited conversations - an experience worth repeating. Hmm ? What shall we celebrate next year?

Other News:

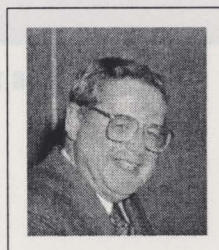
Due to popular demand, the Society will shortly issue an archival CD-ROM containing all 24 issues of the 1995-96 IEEE Journal of Solid-State Circuits. This will be sent free of charge to all current (and new) members of the Solid-State Circuits Society. In the future, we plan to produce yearly updates to the Journal. Issues prior to 1995 were not kept in electronic form, so this material would have to be scanned in, driving up the cost. How much interest do you have in pre-1995 issues of the JSSC on CD-ROM? Please let me know.

In this Issue...

Message from the President	1
SSCS / ISSCC WEB Update	2
ISSCC Update	2
SSCTC Workshops	4
Membership News	4
"The Origin of the Journal..."	5
Awards	8
Logo Contest	9
Meetings Calendar	9
Society Officers	10

Message from the President con...

Also at ISSCC, the Society presented an Award for Distinguished Service to Mr. W. David Pricer, who served as Chair of the ISSCC Executive Committee from 1988 through 1996. During his tenure, Mr. Pricer was responsible for initiating such popular ISSCC features as tutorials, short courses, social hours, the ISSCC Slide Supplement, and CD-ROM publication of the ISSCC Digest.



W. David Pricer

He was also responsible for the most important task of maintaining the high technical standards of ISSCC that make it our premier conference. Many thanks, Dave!

At this time, the Administrative Committee of the Society has two items on its plate. First is encouraging and supporting formation of local Society Chapters - either stand-alone (12 signatures required), or in affiliation with existing chapters of other IEEE societies (3 signatures required). If you have interest in starting a SSCS chapter, let me know and I'll tell you what you need to do. Also, the Society is investigating the establishment of a permanent Executive Office to facilitate contact with and support of the membership. More on this as we go along.



John Trnka
Executive Committee Chair
ISSCC
trnka@vnet.ibm.com

SSCS - ISSCC WEB Update

The Solid-State Circuits Society is maintaining a home page on the World-Wide-Web at <http://www.sscs.org>. The International Solid-State Circuits Conference, ISSCC, home page is available at <http://www.isscc.org>. A copy of this newsletter as well as previous ones can be viewed directly on the WEB by selecting the "Newsletter" under "Publications" from the SSCS homepage.

SSCS

The conference references have been changed to reflect the definitions discussed at the February SSCS meeting. Conferences and meetings are now divided into the three categories of Sponsorship, Technical Co-Sponsorship, and Cooperation. In addition, a section is available for IEEE conferences and meetings on related subjects, but not fitting one of the above categories. The calendar has been updated as well. For the SSCS homepage contact John Trnka at trnka@vnet.ibm.com.

ISSCC

The 1998 Call for Papers is available online. The 1998 activities calendar is also available, and the 1998 Program Committee listing will be viewable in June. The Press Releases from the 1997 Conference are no longer password protected and can be viewed by anyone wishing to review the highlights of the 1997 Conference. Other updates, additions, and suggestions are welcome. For the ISSCC homepage contact Frank Hewlett at hewletfw@smtplink.mdl.sandia.gov.

ISSCC Update

International Solid-State Circuits Conference

1997 Conference

This year's ISSCC was held in San Francisco on February 6-8, with attendance exceeding 3000 for the first time since 1984. The conference has experienced a steady growth in attendance and program offering over the past five years, much to the credit of David Pricer's leadership over this period. Of course, with this growth, some growing pains and inconveniences to attendees have occurred. To those of you who were inconvenienced, please accept my apology. The Executive Committee is aware of the problem areas from your input, and will be working on the 1998 Conference to make operational adjustments. For those of you who were able to attend or participate in the 1997 Conference, thank you. For those who were not able to attend this year, we hope you will have the opportunity in the future.

1998 Conference

ISSCC'98 will be held in San Francisco Thursday through Saturday, February 5-7, 1998. An initial Call for Papers is available on the WEB at <http://www.isscc.org>. This will be updated in May to the Final Call. The dates for papers for ISSCC'98 are Sept. 5 for the Draft and Abstract, and Nov. 7 for the Final Paper. The theme for 1998 will be "Global Communications."

1998 Program Committee

The Program Committee for the 1998 Conference is now complete. The first committee meeting in the US will be in early June, with the focus of the meeting being Evening Panel organization, program content and changes. The Technical Program Chair is John Cressler from Auburn University, Auburn University, Alabama. Inquiries should be directed to Prof. Cressler at cressler@eng.auburn.edu or FAX 334-844-1809. A complete list of contacts for the committee will be available on our WEB site in June. Below is an abbreviated list of key contacts for the technical program.



Technical Program Chair
John Cressler
cressler@eng.auburn.edu



Program Vice Chair
Stewart Taylor
staylor@tqs.com



Far East Chair
Masaharu Kubo
kubo@cm.musashi.hitachi.co.jp



Far East Secretary
Katsuhiko Shimohigashi
k-shimoh@crl.hitachi.co.jp



European Chair
Rudy Van de Plassche
plassche@natlab.research.philips.com



European Secretary
Willy Sansen
willy.sansen@esat.kuleuven.ac.be



Analog Chair
Behzad Razavi
razavi@opus.hpl.hp.com



Communications Chair
Enjeti Murthi
enjeti@scs.philips.com



Digital Chair
Ian Young
iyoung@ptdcs2.intel.com



Memory Chair
Richard Crisp
crisp@rambus.com



Sensors Chair
Dennis Polla
polla@ee.umn.edu



Signal Processing Chair
Rajeev Jain
jain@janet.ucla.edu



Technology Directions Chair
Tim Tredwell
tredwell@kodak.com

Suggestions: ISSCC is interested in your feedback. If you have comments regarding the operation of the Conference, or suggestions for expanded services for attendees, please email them to trnka@vnet.ibm.com.



Russ Apfel
russ.apfel@amd.com

Fall 1997 SSCTC Workshop

The fall 1997 SSCTC Workshop will be an International Workshop on Clock Distribution Networks - Design, Synthesis and Analysis. It will be held on October 9 and 10, 1997 at the Atlanta Marriott North Central in Atlanta, Georgia. Technical organizers are:

Wentai Liu,
North Carolina State University
wentai@eos.ncsu.edu

Eby Friedman,
University of Rochester
friedman@ee.rochester.edu

Paul Franzone,
North Carolina State University
paulf@eos.ncsu.edu

Please contact the technical chairs or the SSCTC co-chairs if you are interested in speaking at the workshop or attending the workshop. Registration information will be available in the Summer newsletter and in the JSSC.

SSCTC Workshops

The Solid-State Circuits and Technology Committee (SSCTC) is a committee formed by the Solid-State Circuits Society to organize workshops on topics of interest to the Society's members. The SSCTC Workshops are intended to be interactive meetings of experts in disciplines related to integrated circuit design. The workshops are not intended to be tutorials or short courses and attendees should be active in the field of the workshop. The workshops are informal and no written presentation is required. Speakers are encouraged to discuss the latest developments in their work and there is significant time allocated for audience participation and discussion. Presentations at these workshops are exempted from pre-publication rules of ISSCC. Recent workshop topics have included RF design, microprocessor design, DSP design and algorithms, images and sensors and embedded memories. The next two scheduled workshops are in October 1997 (Clock Distribution) and February 1998 (Memory). Workshops are normally held in February at ISSCC and the fall (October) but other times can also be considered. The SSCTC is looking for inputs

for future workshops as well as individuals who may want to organize workshops. The SSCTC will provide all of the organization and financial support so that workshop organizers just have to put together a technical program. We are prepared to support more workshops if there is interest from the Solid-State Circuits community. If anyone wants more information please contact any of the SSCTC co-chairs:

Stan Schuster
IBM T. J. Watson Research Center
schustr@watson.ibm.com

Dave Allstot
Oregon State University
allstot@ece.orst.edu

Russ Apfel
Consultant
russ.apfel@amd.com



Chuck Gwyn
Charles_Gwyn@ccm.sc.intel.com

Membership News

A membership promotion was held in conjunction with ISSCC97. The membership incentive offered, on a one-time-only basis, was a free six month membership to IEEE and the new Solid-State Circuits Society to conference registrants who paid the non-IEEE member conference registration fees. The promotion was successful by all measures. We had a total of 370 new IEEE and SSCS members, 56 new student members and 19 present IEEE members who joined the SSCS. A total of 445 new Society members were enrolled. We express a special thanks to Ms. Linda Dreisbach of Leigh University for her help in organizing and working the membership table and to Bob Swartz and Les Palkuti for registration assistance.

The Origin of the Journal, the Council, and the Conference of Solid-State Circuits

Taken from: *Journal of Solid-State Circuits*,
SC-19, No. 2, April, 1984

Donald O. Pederson, Fellow, IEEE

This Journal, our much loved and greatly respected "Red Rag," will be a mere 18 years old this year of the IEEE Centennial – only a youth in the history of electronics and electronic applications. Nonetheless, it has become a most important journal for electronic workers of many types. Its origins and its growth are a very good indication of the vitality and growth of the IEEE itself and how it has identified the needs of its members and has adapted both organizationally and with new institutions to meet new needs.

Investigations in physical electronics, of course, precede the formation of the AIEE and the IRE, the predecessor-organizing organizations of the IEEE. At about the time of the initiation, the Edison effect had been noted, probably by several investigators, occurring within thermionic bulbs with an extra electrode. Most electronics at that time was really concerned with the physics underlying electronics. Engineering electronics, in a sense, can be dated from 1896; in that year J. J. Thomson put the electron beam to work and developed the cathode-ray tube, one of our first and still most important engineering devices. In the same year, G. Marconi put electromagnetics to work and demonstrated wireless communications, i.e., the radio.

Electronic circuits, as we know them today, can probably be dated from the work of Edwin Armstrong, especially from his development of regeneration in 1912. With the availability of DeForest's triode tube, developments in electronic circuits came fast, involving a whole gamut of signal processing functions – amplification, filtering, modulation, detection, and so forth. A major milestone was the development of the superheterodyne principle, again by Armstrong, in 1918. (He also developed the superregenerative receiver in 1924, and frequency modulation in the early '30s.) For what are now called digital (discrete-state) circuits, an important milestone was reached 1919 when Eccles and Jordan first published the details of their circuit for achieving two stable states – the famous Eccles/Jordan flip-flop. Descriptions of these new electronic circuits, of the functions they achieved, and the evaluation of how the function is achieved by the circuitry oftentimes appeared in the publications of the predecessor organization, the IRE. In fact, as one looks at the PROCEEDINGS OF THE IRE of those early days, one can readily see the kinship which the JOURNAL OF SOLID-STATE CIRCUITS has with it.

Jumping ahead to the late '40's, and the invention of the transistor, one sees both similarities with the earlier developments and a significant difference. Many of the early developments of transistor electronics, i.e., solid-state electronics, did appear in the PROCEEDINGS OF THE IRE and the TRANSACTIONS of the various IRE Professional Groups (now Societies of the IEEE). But it must be recognized that within what is now the IEEE, the strong development of professional subentities, each with an area of expertise and each with distinct views of what was critical and important, had an inhibiting effect on new developments. It is true that within each of these early societies there were voices that said we must look at and emphasize new developments and new application areas. However, each Society was moving and expanding rapidly in its own right and most did not have the resources necessary to incorporate new research areas or to set up new publications.

By the early 1960's, distinct problems with respect to solid-state circuits were quite evident. In some Societies, there was a distinct feeling of threat by the growth of solid-state circuits. These Societies felt pressed to take over and control these new developments, but also to protect their particular areas. Other Societies, although noting the competitive aspect, believed that they must work closely with this new topic and area in a complementary manner. On the other hand, there were Societies that were so involved with the burgeoning technology of their own field that they had difficulty attending to the problems that arose with solid-state circuits; it was the hope that somebody else would take care of the nurturing of this area. And, finally, within one society the internal stresses mentioned above led to the realization that something must be done with regard to adequate publication and that it undoubtedly could not be done within their own publications. A new publication appeared to be essential.

In 1954, there emerged the forerunner of the very important conference, the International Solid-State Circuits Conference. The ISSCC emerged because of a new committee and the explosive desire for people to participate in its deliberations. This committee was the so-called Four-Ten (4.10) Committee. In those days of the IRE, one of the standing committees was Committee Four, which dealt with all aspects of radio circuits. Within Committee Four there were numerous subcommittees dealing with topics such as standards. Several members of the IRE felt that it would be appropriate to have a committee that would coordinate aspects of solid-state circuits. Thus, the Four-Ten Committee was formed, holding its first meeting in 1953 in Connecticut. Out of the first meeting came the conclusion that a new conference should be held in which participants could present and hear papers in this new field

of solid-state circuits. With the sponsorship of the University of Pennsylvania, the Pennsylvania Section of the IRE the IRE Professional Group on Circuit Theory, and the Four-Ten Committee, the first IRE-AIEE Conference on Transistor Circuits was held and was inundated with an unexpected 600 attendees. The Chairman of this first conference of what was to become the ISSCC was Irving Wolfe and the first Technical Program Chairman was John Linvill.

The ISSCC has now celebrated its 30th anniversary and without question is one of the most dynamic and most important conferences sponsored by the IEEE and its constituent elements. An important factor in its success has been the availability at the Conference of the *Digest of Technical Papers*. The *Digest* is now a leading, important publication in its own right, due to the superb contributions of Lew Winner. Histories of the Conferences and the *Digest of Technical Papers* appeared in the *Digests* of 1978 and 1982.

About the time of the merger of the AIEE and the IRE in 1963, principal people involved with the technical aspects of the ISSCC, viz. a succession of the Technical Program and the General Program Chairmen, became aware of the severe publication problem. Here was a premier conference, yet there was no archival journal for this field. There was not a suitable journal within the IEEE in which full-length papers on the topics of the Conference presentations could be made. It was evident that these papers were not being published in major journals. If published at all, these papers were in nonarchival trade journals. Thus, several of the key players in the formation of the JOURNAL OF SOLID-STATE CIRCUITS and the Solid-State Circuits Council came from ISSCC.

Several Societies or Groups of the IEEE were worried about this publication problem and some had started to take action with respect to the formation of a new journal. However, at this time, another technical coordination problem had arisen that had initiated action within the IEEE. The Technical Activities Board (TAB) of the Institute under the guidance of Richard Emberson proposed that a "Council" be formed to coordinate the intersociety aspect of the new field of quantum electronics. The Quantum Electronics Council was established with membership from interested Groups and Societies within the IEEE. Following this precedent, and as proposals for new journals emerged from other Societies, a key ad-hoc committee of TAB was formed under the chairmanship of James Mulligan. Out of the deliberations came the proposal to form the Solid-State Circuits Council. The four founding societies of the Council were, in alphabetical order, the Circuits and Systems Society, the Computer Society, the Electron Devices Society, and the Microwave Theory and Techniques

Society. Each of these Societies nominated two of its members to serve as representatives on the Solid-State Circuits Council. A new aspect for this Council was its mandate to originate and to manage a new journal, the JOURNAL OF SOLID-STATE CIRCUITS. The council was given the responsibility of setting policy for the new journal, of establishing publication standards and formats, of choosing the Editor, of working with him to establish a team of Associate Editors and to coordinate the work of this editorial group with ISSCC.

From the beginning, a decision was made that a major source of papers for the JSSC should be the full-length versions of papers first presented at the ISSCC. However, this aspect took time. Many of the conference speakers at the ISSCC were not accustomed to publishing in refereed, scholarly publications. After the vigorous refereeing and selection process for paper presentation at the ISSCC, it was necessary to work rather carefully with the prospective authors to encourage them for further effort to achieve the results for adequate publication in a major journal of the IEEE. The first Editor, James Meindl, then of the U. S. Army Electronics Command and now of Stanford University, had to be very diligent in his search for both adequate quantity and quality of papers for his first issues. The first issue was in September 1966. It is important to acknowledge the support given Meindl and his publication efforts by the U. S. Army. This support was essential in launching the new journal.

Dr. Meindl, as the first Editor, made significant contributions, not only in working with the authors to publish their good contributions in spite of the press of their dealing on a daily basis with the exploding technology of solid-state circuits and devices. In addition he set the tone of the JOURNAL OF SOLID-STATE CIRCUITS. In short order, he was able to achieve a high standard of quality and was able to establish a pattern of publishing major ISSCC presentations as regular title papers, with the support and assistance of the Solid-State Circuits Council and the committees of the ISSCC. The tradition was definitely established of good papers in this field being published in the Journal. As the Journal moved to bimonthly rather than quarterly publication, special issues were authorized and encouraged concerning principal topics of the presentations of the ISSCC, such as Digital Logic and Memory, Analog Circuits, and so forth. After five years, Professor Meindl stepped down as the Editor and was followed by Professor David Hodges. Hodges continued the developments established by Meindl and brought in his own talents to establish the orderly organization of reviewers and special issues. After these two Editors it was clear that the JOURNAL had already become a major publication: it was here to stay. The succession of Editors for the JOURNAL is shown in Table 1. Each Editor has been excellent in running the

JOURNAL, in establishing new directions, taking initiative in developing new ideas, and continuing to enhance the quality of this publication. There have been many Associate Editors who have contributed greatly of their time.

Table I
Editors of the JSSC

James D. Meindl
David A. Hodges
Lewis M. Terman
Paul R. Gray
Gary L. Baldwin
W. David Pricer

The organizations with whom the editorial staff are affiliated have been active supporters, permitting time and giving support for this professional effort.

A few years after the establishment of the Council and the JOURNAL, new IEEE policies were established with regard to conferences. In the present case, it was decided that the International Solid-State Circuits Conference, as an important conference, should be governed by a standing body of the IEEE. For the ISSCC, the Solid-State Circuits Council was the logical choice, replacing the more loosely coupled, informal Sponsors' Committee. Nonetheless, the Sponsors' Committee of the ISSCC was retained for a lengthy time; however, within this committee were now representatives from the Solid-State Circuits Council together with the representatives from the Philadelphia Section and the University of Pennsylvania. This group took the active role in overseeing an administrative office for the ISSCC. A critical person in the Sponsors' Committee from the very beginning was Murlan Corrington of RCA. Up until his retirement, he was a dominant, albeit a quiet and unobtrusive, person who insisted on the proper development and operation of a superb conference.

With the growth of solid-state electronics on the West Coast, it became clear that it was time to think in terms of other locations for the ISSCC. After lengthy studies, a trial conference location at San Francisco was proposed for the 1978 conference. The conference in San Francisco was a resounding success with near-record attendance. The conclusion of the Sponsors' Committee and the Council was that the ISSCC should alternate between the East and West Coasts. This in turn led to a change in the constituency of the Sponsors' Committee. The University of Pennsylvania dropped out of active involvement, and the IEEE Section involved depended upon the location of the Conference. In 1976, the Sponsors' Committee was changed to the Executive Committee of the Conference, the Chairman of which

is appointed by the Solid-State Circuits Council.

Thus, we arrive at today. The JOURNAL OF SOLID-STATE CIRCUITS is a healthy dominant force in the technical area of solid-state Circuits. Its parent, the Solid-State Circuits Council, has lived up to all expectations of its first Charman, Professor John Linvill. Table II shows the names of the succession of excellent Council Chairmen. The Council has expanded over the years to include other IEEE Societies as their interest has encompassed solid-state circuits. The present membership of the Council is shown in Table III. The Council truly has become a body by which the interested societies can participate successfully without competition. Its conference, the ISSCC, continues in its path-breaking role.

Table II
Chairmen/Presidents of the SSCC

J. G. Linvill
G. E. Moore
F. H. Blecher
J. D. Meindl
J. A. A. Raper
R. R. Webster
D. A. Hodges
M. R. Barber
W. J. Spencer
W. D. Pricer
R. G. Meyer
F. K. Buelow

Table III
IEEE Societies Affiliated with the SSCC

Circuits and Systems
Communications
Components, Hybrids, and
Manufacturing Technology
Computer
Electron Devices
Microwave Theory and
Techniques
Quantum Electronics and
Applications
Sonic and Ultrasonics

Acknowledgment

In the early days, the ISSCC, or its forebearer, was always held in the city of Philadelphia. Thus, the older of us still refer to the Conference as "Philly." We go with pleasure to "Philly" in February no matter where the Conference is being held. It has been my pleasure to think back to the origins of the "red rag," the Council, and to Philly. I have been aided in my remembrances in talks with Dave Hodges, John Linvill, Jim Meindl, Jim Mulligan, Dave Pricer and Mac Van Valkenburg. They have been helped by conversations with Dick Emberson and Murlan Corrington. To all, I am pleased to acknowledge their suggestions and input. If I have twisted a fact or two, I alone take responsibility.

The Author

Donald O. Pederson (S49-A'51-M56'-F'64) received the B.S. degree from North Dakota State University, Fargo, in 1948, and the M.S. and Ph.D. degrees from Stanford University, Stanford, CA, in 1949 and 1951, respectively.

From 1951 to 1953, he was a Research Associate with the Electronics Research Laboratory, Stanford University. He worked at Bell Telephone Laboratories and was also a lecturer at the New Jersey Institute of Technology from 1953 to 1955. In 1955 he joined the University of California, Berkeley. He is now a Professor with the Department of Electrical Engineering and Computer Sciences, engaged in research in integrated circuits and computer-aided integrated circuit design, and is the Chairman of the Department. From 1960-1964, he was Director of the Electronics Research Laboratory.

Dr. Pederson is a member of Sigma Xi and Eta Kappa Nu. In 1964 he was a Guggenheim Fellow. He was the recipient of the 1969 IEEE Education Medal. In 1974 he was elected to the National Academy of Engineering. He was awarded an honorary Doctor of Applied Science by the Katholieke Universiteit, Leuven, Belgium, in 1979. In 1982 he was elected to the National Academy of Sciences.

IEEE Solid-State Circuits Society Predoctoral Fellowship Award for 1996-1997

The IEEE Solid-State Circuits Society is pleased to announce that Ozan E. Erodgan of the University of California at Davis is the recipient of the Predoctoral Fellowship Award for the 1996-1997 academic year.



Ozan E. Erdogan, (B'96) was born on June 21, 1968 in Izmir, Turkey. He received the B.S. degree in electrical engineering from Bogaziçi University, Istanbul, Turkey, in 1990 and the M.S. degree in electrical engineering from Northwestern University, Evanston, Illinois in 1993. Currently, he is pursuing the Ph.D. degree in electrical engineering at the University of California, Davis in the area of high-speed analog-to-digital converters.

From 1990 to 1991 he worked at the Department of Electrical Engineering of Bogaziçi University as a Research Assistant. He worked with the image processing group of Northwestern University on MPEG-4 image compression algorithms from 1993 to 1994. His research interests include analog and digital circuit design, signal processing, and image compression.

IEEE Solid-State Circuits Society Logo Search

Les Palkuti

palkuti@hq.dswa.mil

The newly formed IEEE Solid-State Circuits Society needs your help. It exists but doesn't have a logo like other IEEE societies. Members and friends of the SSCS can rectify this state and see their artistic and creative wizardry preserved forever in posterity, by submitting logo ideas (before 15 July, 1997) by mail, FAX or electronic mail to:

L. J. Palkuti
DSWA/ESE
6801 Telegraph Rd.
Alexandria, VA 22310-3398
FAX (703) 325-2959
Email: *Palkuti@hq.dswa.mil*

The logos of some other IEEE Societies are shown in Figure 1, below. Our logo search committee will consider almost any proposal; but some depiction of a solid-state circuit as part of the logo will enhance the submission (see Figure 2). The logo should print clearly either in black & white or in color and must not incorporate any registered trademark, such as the IEEE logo.

As an incentive, the IEEE Solid-State Circuits Society will present a feature-packed solid-state circuit application product - DIGITAL CAMERA - to the person or entity submitting the winning logo design. Submit as many ideas as you like. All become the property of the IEEE.

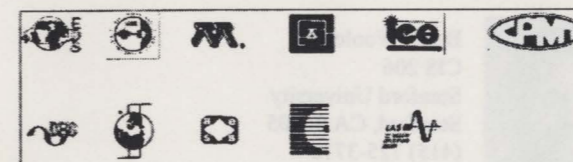


Fig 1. Some examples of IEEE Society logos.

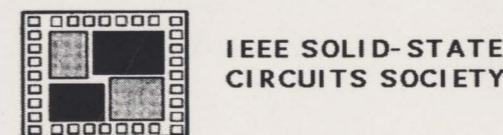
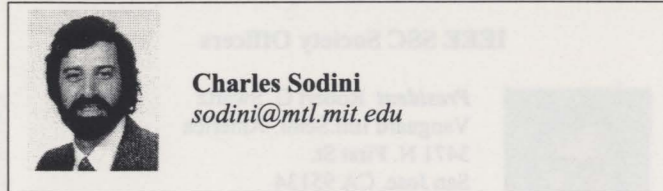


Fig. 2 Example of a possible Solid-State Circuits Society logo



Charles Sodini
sodini@mitl.mit.edu

Meetings Calendar

Custom Integrated Circuits Conference
May 5-8, 1997 Santa Clara, CA.
Melissa Widerkehr 301-527-0902

Symposium on VLSI Technology
June 10-12, 1997 Kyoto, Japan
Melissa Widerkehr 301-527-0900

Symposium on VLSI Circuits
June 12-14, 1997 Kyoto, Japan
Melissa Widerkehr 301-527-0900

Symposium on Low-Power Electronics and Design
August 18-20, 1997 Monterey, CA.
A. Chandrakasan 617-258-7619
S. Kiaei 541-737-3118

ASIC Conference
September 7-10, 1997 Portland OR.
Lynne Engelbrecht 716-254-2350

European Solid-State Circuits Conference
September 16-18, 1997 Southampton UK
H-J Pfeleiderer 49-731-502-6200

Bipolar/BiCMOS Circuits and Technology
September 29-30, 1997
Minneapolis, MN.
Janice Jopke 612-934-5082

International Conference on VLSI and CAD
October 13-15, 1997 Seoul, Korea
Eun-Ho Jeong 82-2-565-2435

International Solid-State Circuits Conference
February 5-7, 1998 San Francisco, CA.
Diane Suiters 202-639-4255

More information is on the web.

IEEE SSC Society Officers



President Robert G. Swartz
Vanguard Intl.Semi.-America
3471 N. First St.
San Jose, CA 95134
(408) 895-5501
(408) 895-5599 Fax
rgswartz@vis-a.com



Vice President Lewis M. Terman
IBM Research
P.O. Box 218
Rt. 134 at Taconic Pkwy.
Yorktown Heights, NY 10598
(914) 945-2029
(914) 945-1358 Fax
terman@watson.ibm.com



Past President Harry Mussman
GTE Laboratories
MS 48
40 Sylvan Road
Waltham, MA 02254
(617) 466-2410
(617) 890-9320 Fax
hem@gte.com



Secretary John Corcoran
Hewlett-Packard Laboratories
Building 26U
P.O. Box 10350
Palo Alto, CA 94303
(415) 857-3178
(415) 857-3637 Fax
corcoran@hplabs.hpl.hp.com



Treasurer Earl E. Swartzlander, Jr.
Dept. of Electrical and
Computer Engineering
University of Texas at Austin
Austin, TX 78712
(512) 471-5923
(512) 471-5907 Fax
e.swartzlander@compmail.com

AdCom Members



Nicky Lu
Eltron Technology, Inc
P. O. Box 19-54
Science-Based Industrial Park
Hsinchu, Taiwan, ROC
886-35-778-670
886-35-779-001 FAX
nicky@eltron.com.tw



Chris Mangelsdorf
Analog Devices K.K.
New Pier Takeshiba, South Tower Bldg.
1-16-1 Kaigan, Minato-ku
Tokyo 105 Japan
(81)-3-5402-8254
(81)-3-5402-1065 FAX
chris.mangelsdorf@analog.com



Willy Sansen
K.U. Leuven ESAT-MICAS
94 K. Mercierlaan
B-3001 Leuven
BELGIUM
32-16-32-10-78
32-16-32-19-75 FAX
willy.sansen@esat.kuleuven.ac.be



Eric Vittoz
CSEM Centre Suisse
d'Electronique et de Microtechnique SA
Jaquet-Droz 1
CH - 2007 NEUCHATEL
SWITZERLAND
41 32 7205 225
41 32 7205 763 FAX
eric.vittoz@csemne.ch



Bruce Wooley
CIS 206
Stanford University
Stanford, CA 94305
(415) 725-3710
(415) 725-6949 FAX
wooley@ee.stanford.edu

IEEE SOLID STATE CIRCUITS NEWSLETTER

is published by the
Institute of Electrical and Electronics Engineers, Inc.
345 E47 Street, New York, NY 10017
Charles W. Gwyn, Editor 510-294-2372
John H. Wuorinen, Publisher 207-326-8811
Ruth E. Shaw, Associate Editor 207-326-8811

© 1997 IEEE

IEEE information obtained in this newsletter may be copied without permission provided that copies for direct commercial advantage are not made or distributed, and the title of the publication and its date appear on each copy.