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IEEE Electron Devices Society Newsletter

1994 International Electron Devices Meeting (IEDM)

San Francisco Convention & Visitors Bureau



This year, the International Electron Devices Meeting (IEDM) will be held at the San Francisco Hilton from Dec. 11th to 14th. The IEDM is the premier international forum for reporting advances in the technology, design, manufacturing, physics and modeling of electron devices ranging from deep sub-micron MOS-FETs to flat panel displays, and from compound semiconductor materials to new memory architectures. The conference attracts authors and attendees from all over the world, and provides an excellent opportunity to meet colleagues and to keep up with the state-of-the-art in a broad range of technologies.

Conference Location — San Francisco, CA

This year, the IEDM makes its biennial return to San Francisco, CA — a city recently described on the BBC World Service as "the restaurant capital of the US." The conference hotel is located close to Union Square and downtown, and there are plenty of opportunities to sample the city's cuisine and shopping within walking distance. A short cable car or cab ride can take you to China Town, with its exotic shops and restaurants, or Fisherman's Wharf where the seafood is second to none. Other attractions in the city include the Golden

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Contributions Welcome

Readers are encouraged to submit news items concerning the Society and its members. Please send your ideas/articles directly to either the Editor or appropriate Associate Editor. All contact information is listed on page 2. Whenever possible, e-mail is the preferred form of submittal.

Newsletter Deadlines

<u>Issue</u>	<u>Due Date</u>
January	October 1st
April	January 1st
July	April 1st
October	July 1st

Your Comments Solicited

Your comments and suggestions are most welcome. Please write directly to the Editor of the Newsletter at the address given on page 2.

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Message from the Educational Activities Chair

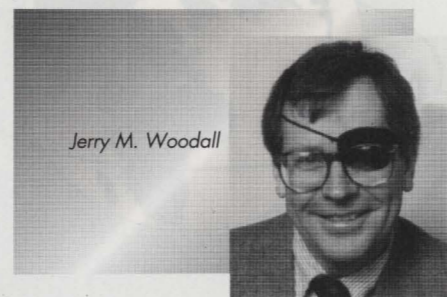
At the June 19, 1994 Administrative Committee (AdCom) meeting, it was my pleasure to announce the creation of an expanded Distinguished Lecturer (DL) Program. The purpose of the DL program has been to serve as a convenient resource, especially for Chapters, to assist them in planning high quality programs for their membership. While the program has produced outstanding lecturers who have been enthusiastically received at Chapter meetings, it has suffered from a very obvious short coming: there have not been enough of them to go around, i.e. there are more than 50 EDS chapters and only 1-2 lecturers! This is now about to change.

By conscripting the services of the voting members of the EDS AdCom, we hope to have an inventory of more than 25 DLs with expertise in a broad range of subjects important to the purview of EDS. The voting members of AdCom are: 4 officers; 2 past presidents; 20 elected members-at-large (soon to be 22); and 12 standing committee chairs. Since a number of AdCom members hold several positions, there are currently only 27 individuals holding the 38 voting member positions.

We are planning to have the program operate as follows. The DLs have already provided a list of current topics in which they are fluent, along with their travel plans for the upcoming fiscal year to the EDS Executive Director, Bill Van Der Vort. He has formed a data base of this information and established a document which lists all the EDS distinguished lecturers with their contact information and travel plans. This document will be distributed on a quarterly basis to all EDS chapters. The first distribution is scheduled for September.

The Chapters will then have the responsibility to contact the desired DLs to express their interest in having the individual give a lecture at one of their meetings; and, then also make the necessary local arrangements for the DL to attend the meeting. A general guideline for the visit, but not the absolute rule, is that the DL should be able to include the meeting site with an already planned travel schedule at a small incremental cost to the travel plan. Alternatively, a prior coincident travel plan would not be required if the DL is already located within an approximate fifty mile radius of a meeting site.

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Jerry M. Woodall

EDS ADCOM MEMBERS-AT-LARGE

Term Expires:

1994	1995	* 1996
J.T. Clemens	S. Asai	B.F. Griffing
A.G. Foyt	P.E. Cottrell	T. Ikoma
J.L. Merz	W.D. Johnston, Jr.	R.P. Jindal
L.C. Skinner, II	L.C. Parrillo	J.B. Kuo
C.G. Sodini	J.M. Woodall	J.K. Lowell
R.B. True	C.Y. Yang	I. Mojzes
		T.H. Ning
		R.J. Van Overstraeten

* Members elected 12/93

1994 IEDM

(continued from page 1)

Gate Park (with its Japanese Tea Garden, the Asian Art and De Young Museums, and the California Academy of Sciences), Telegraph Hill with its spectacular views

of the City and Bay, the Golden Gate Bridge, reputed to be the most photographed man-made structure in the world, and the island of Alcatraz, where many of the nation's most notorious criminals were incarcerated until the prison was closed in 1963.

First World Conference on Photovoltaic Energy Conversion



The First World Conference on Photovoltaic Energy Conversion (WCPEC) will be held Dec. 5-9, 1994, in Hawaii, USA. This historic event is being jointly planned by the organizing and sponsoring bodies of the Photovoltaic Specialists Conference (U.S.), the Photovoltaic Science and Engineering Conference (Japan), and the Photovoltaic Solar Energy Conference (Europe).

The conference will bring together scientists, engineers and others from industry, government and academia from around the world to share the latest developments in this important field. The technical program will address the highest priorities of each community through careful selection of contributed and invited papers. It will encompass the latest in advanced device research as well as in manufacturing and product development. Presentations and workshops will deal with efforts to commercialize and apply photovoltaic technology. A large exhibit area, with industry participants from around the world, will also provide information on the latest commercial technology available.

A pre-conference public exposition will be held on Sunday, Dec. 4, 1994 and will include exhibits and special seminars on topics of general interest, such as: stand-

alone system installation, private home use, photovoltaic lighting, etc. A highlight event, exhibiting the utilization of solar energy, will be a model solar car race with entries from the local high schools on the island of Hawaii. Vendors will be available to meet with the public to demonstrate and discuss commercial technology.

The conference venue will be at the Hilton Waikoloa Village on the famed Kohala coast of the Big Island of Hawaii. The hotel is a resort of unparalleled splendor, and has promised to give its undivided attention to the conference and its attendees. The island of Hawaii, with its volcano and lava rock landscapes, rain forests and tropical beaches, is breathtaking. All who attend will find it a memorable occasion.

We look forward to seeing you there. For more information, please contact: Dennis J. Flood, General Chairperson, NASA Lewis Research Center, MS 302-1, 21000 Brookpark Road, Cleveland, OH 44135, Phone (216) 433-2303, Fax (216) 433-6106.

— Dennis Flood,
NASA Lewis Research Center,
MS 302-1, 21000 Brookpark Road,
Cleveland, OH 44135

If you can spend a little longer in the area, San Francisco is surrounded by beautiful scenery and fascinating places to visit, all within an easy day trip of the city. To the north of the city, for example, the Muir Woods National Monument and the Poin Reyes National Seashore offer magnificent stands of coastal redwoods and rugged and dramatic coastline. Further inland lie the Napa and Sonoma Valleys where more than 300 wineries welcome visitors with tours and wine tasting. The city of San Jose and Silicon Valley are a short drive south of San Francisco, and beyond them lies the Monterey peninsula, with its spectacular coastal scenery, golf courses, and world-famous aquarium.

40th Anniversary

1994 will mark the 40th anniversary of the IEDM. The first "Annual Technical Meeting on Electron Devices" was held in 1955 at the Shoreham Hotel in Washington, DC. There were 54 papers presented, only a quarter of them dealing with semiconductor devices. Since then, of course, the electronics industry has grown enormously, and spawned devices and machines that could hardly have been foreseen when the conference was conceived. The IEDM has grown to match the industry and research institutions it serves. The 1993 conference included over 200 papers, with almost 90% of them dealing with various aspects of semiconductor devices. This year, a special talk will be given by Simon Sze at the Conference Luncheon and will highlight key events from the past 40 years of IEDM.

New for 1994: Software Showcase and Emerging Technology Session

Two new events have been added to the schedule for the 40th IEDM. The first is a Software Showcase that will give attendees the chance to see, work with and compare advanced CAD tools running on high performance workstations provided at the conference. A special session will be held where the tools are demonstrated, and they will remain available for a full day to allow attendees to gain some first hand experience. The emphasis for this Showcase will be on the application of CAD software to real problems encountered in the industry. If you have software which you wish to demonstrate, please contact David Yaney, E-MAIL: dave_yaney@atcmac.sps.mot.com, TEL # (602) 655-5389 as soon as possible.

The second event will be a special Emerging Technology session which will include a number of invited talks offering a

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The Election Process for the EDS Administrative Committee (AdCom)

The Members-at-Large (MAL) of the EDS AdCom are elected for staggered three-year terms, with a maximum of two consecutive terms. The 1993 Constitution and ByLaw changes mandate increasing the number of elected MALs from 18 to 22, and requires that there be at least two members from IEEE Regions 8 (Europe, Mid. East & Africa) and 10 (Asia & Pacific). It also requires that there be at least 1.5 candidates for each opening. In 1993, eight positions were filled; in 1994 and 1995, seven positions will be filled each year, and then the three year-cycle will start over.

The 1993 election had 16 candidates, including three candidates for the two Region 8 positions and two candidates for the one Region 10 position open. As it turned out, both candidates from Region 10 were elected. The election procedure begins with the announcement and call for nominations in this Newsletter and the EDS section in the IEEE Circuits and Devices Magazine around September. The slate of nominees is developed by the EDS Nomination Committee and includes the non-Committee and self-nominations received. In 1993, two non-Nomination Committee nominees were elected. Nominees are asked to submit a two-page biographical resume in a standard format. Nominations are closed around the end of October, and the biographical resumes are distributed to the voting members of AdCom prior to the AdCom meeting. Nominees are urged to attend the December AdCom meeting, and the election is held after the conclusion of the business section of the AdCom meeting.

A continuing flow of new AdCom members who are interested in working for the improvement of the Society and its related technical areas is key to the continued development of EDS and the field of electron devices. Those interested in the field, the Society, and its operations are encouraged to attend AdCom meetings, become involved in Society activities, and to consider running for election to AdCom.

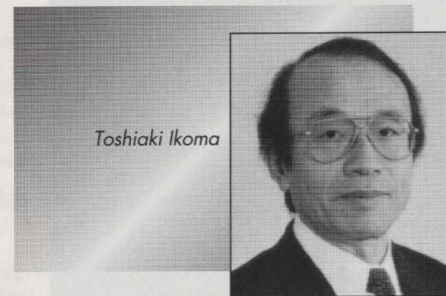
— Lewis M. Terman,
IBM Research Center,
Yorktown Heights, NY

EDS AdCom Members-at-Large

Elected on Dec. 5, 1993

Eight persons were elected to three-year terms (1994-1996) as Members-at-Large of the EDS AdCom. The electees span a wide range of professional and technical interests and backgrounds, and come from around the globe. The following three persons were re-elected to a second three-year term:

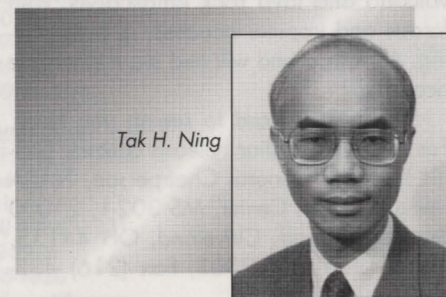
TOSHIAKI IKOMA is President and Director of Texas Instruments Tsukuba Research and Development Center, Ltd. He received a Ph.D. from the University of Tokyo in 1968, joined the faculty at the



Toshiaki Ikoma

University of Tokyo, the Institute of Industrial Science in 1968 and became a full professor in 1982. He moved from the University of Tokyo to the present position in 1994. He has received numerous awards, including: Best Paper Award from the IECE (1972); Outstanding Book Award from the IEICE (1985); Selected Invention Award from Science and Technology Agency (1974); Hattori Hoko-Sho Award (1986). He is an IEEE Fellow. He supervises research and development in the field of Semiconductor Material and Processing, Digital Signal Processing and Mesoscopic Electronics.

TAK H. NING is an IBM Fellow at the IBM T.J. Watson Research Center. He received a B.A. in Physics from Reed Col-



Tak H. Ning

lege in 1967, and a Ph.D from the University of Illinois in 1971. He joined the IBM Research Center in 1973. His awards

include the EDS J.J. Ebers Award for contributions to electron devices (1989), the IEEE Morton Technical Field Award in the field of electron devices (1991), and election to the National Academy of Engineering (1993). He is an IEEE Fellow (1987). His current areas of research are in silicon and integrated circuit devices, physics and technology.

ROGER J. VAN OVERSTRAETEN is President of IMEC vzw and a professor in the EE Department, Katholieke Universiteit Leuven in Belgium. He received the Ir. E.W. degree in engineering and in mechanics at the K.U. Leuven in 1960, and a Ph.D. in Physical Electronics at Stanford in 1963. He joined the K.U. Leuven in 1965, and became a full professor in

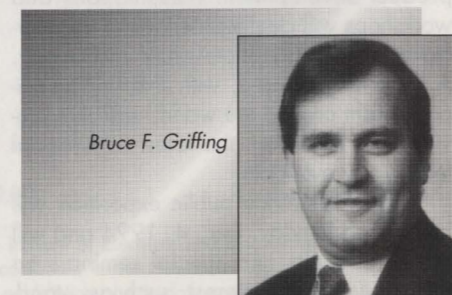


Roger J.
Van Overstraeten

1968. He founded IMEC, an Inter-university Microelectronics Center, in 1984. IMEC now employs more than 500 people. His awards include: INSEAD Innovator Prize (1986), Becquerel Prize (1989), and Flanders Technology International Award (1991). He is an IEEE Fellow (1984) and a member of the Royal Academy of Sciences in Belgium. His current research is in silicon devices, solar cells and CAD.

The following five persons were newly elected to three-year terms as AdCom Members-at-Large:

BRUCE F. GRIFFING is Manager, Detector Technologies Lab at GE Corporate Research and Development. He



Bruce F. Griffing

received a B.S. degree in Physics from Miami University in 1972, and a Ph.D. from Purdue University in 1979. He joined the GE Research and Development Center in 1979, and has worked on MOS device physics, optical lithography, CMOS process development and active matrix displays. He presently manages a group responsible for detectors and optoelectronic devices, primarily for medical imaging. He was Chair of IEDM and has been the EDS Meetings Chair since 1991.

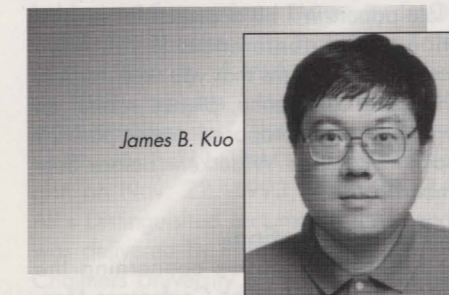
RENUKA P. JINDAL is a Distinguished Member of Technical Staff (DMTS), AT&T Bell Labs, ERC, Princeton, NJ. He received a B.Sc. degree in Physics from the University of Delhi in 1973, and a



Renuka P. Jindal

Ph.D. in EE from the University of Minnesota in 1981. He joined AT&T Bell Labs, Murray Hill, NJ in 1981, and became a DMTS in 1989. His areas of research include fluctuation phenomena in electronic and photonic devices, optoelectronic integration and optoelectronic devices, device modeling, design of THz gain-bandwidth low noise amplifiers and RF measurements. He has been the Editor of the *IEEE Transactions on Electron Devices* since 1990.

JAMES B. KUO is a Professor, Department of EE, National Taiwan University, R.O.C. He received a B.S. in 1977 from National Taiwan University, and a Ph.D



James B. Kuo

from Stanford University in EE in 1985. He became an Associate Professor at National Taiwan University in 1987, and a full Professor in 1990. His present areas of

CALL FOR NOMINATIONS Electron Devices Society Administrative Committee

The Electron Devices Society of the IEEE invites the submission of nominations for election to its Administrative Committee (AdCom). Presently, the AdCom meets biannually and is composed of 20 members. Seven members will be elected this year for terms of three years, and a maximum of two consecutive terms is allowed. In 1994, the election will be held after the AdCom meeting on Sunday, December 11. Electees begin their term in office on January 1, 1995.

Nominees are being sought to fill the slate of candidates. Nominees may be self-nominated, or may be nominated by another person; in the latter case, the nominee must have been contacted and have agreed to serve if elected. Any member of EDS in good standing is eligible to be nominated.

Please send name, address, and supporting information for a nominee to the

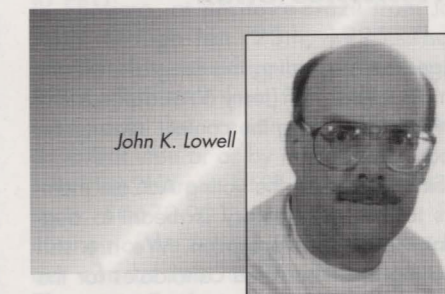
IEEE EDS Nominations and Elections Committee Chair listed below in time to be received by the deadline of October 28, 1994. It is very desirable that submissions include a biographical summary in a standard two-page format. Please contact the Nominations and Elections Chair for an example of the format, and to answer any questions which may arise. The information for contacting the Chair is as follows:

Michael S. Adler
General Electric Company
Bldg. KW, Room C1327
1 River Rd, P.O. Box 8
Schenectady, NY 12301
Tel: (518) 387-5882
Fax: (518) 387-5997
E-Mail: m.adler@ieee.org

The deadline for submission of nominations is October 28, 1994.

research include modeling of BiCMOS devices and circuits for VLSI.

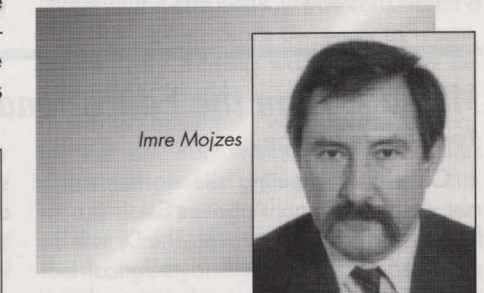
JOHN K. LOWELL is Senior Member, Technical Staff, and Director, Shared Engineering Lab, at Advanced Micro Devices, Austin, and is the Visiting Scholar at the NSF Center for Electronic Materials at University of Texas at Austin, Austin, TX. He received his bachelors and masters



John K. Lowell

degrees in Math/Physics from the University of Massachusetts, and a Ph.D. in Applied Physics from the University of London. His current research interests include dielectrics and oxides, process and device simulation for manufacturing, and optical characterization of Si and GaAs materials. He is Associate Editor-in-Chief of the IEEE Circuits and Devices Magazine, a co-founder of the EDS Central Texas Chapter, and a past member of the IEEE Circuits and Systems Society AdCom.

IMRE MOJZES is a Professor and Head of the Department of Electronic Technology at the Technical University of Budapest, where he has been since 1988. He received a diploma in EE from the Moscow Power Institute in 1972, a Ph.D from the



Imre Mojzes

Technical University of Budapest in 1979 and Dr. of Science Engineering from the Hungarian Academy of Sciences in 1988. He was at the Research Institute for Technical Physics of the Hungarian Academy of Sciences 1973-91 and part-time at Roland Eotvos University of Budapest, 1978-1988. He is head of the Thin Films Division of the Roland Eotvos Physical Society, and head of Electron Device Division of the Scientific Society for Telecommunication. His current research interests are in III-V semiconductor materials and devices, ohmic contacts, integrated microwave and optoelectronic circuits, reliability, and quality assurance.

1994 IEDM

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glimpse of long term technical trends in the industry. The focus this year will be on the applications of micromachining in IC fabrication, and on the integration of optoelectronic interconnects into VLSI circuits.

IEDM'94 Technical Program

The heart of this year's IEDM will, as ever, be its technical program. Over 200 invited and contributed papers will be presented by authors from the Far East, Europe and the US. These papers will deal with the latest advances in several areas: CMOS devices and reliability (covering all aspects of MOS and SOI devices, device isolation, scaling and reliability); solid state devices (bipolar, power, high-voltage and superconducting devices and novel device structures); device technology (fabrication technology and process integration for electron devices); integrated circuits (device integration and process architecture, circuit applications of novel devices, advanced memory devices); quantum electronics and compound semiconductor devices (electronic and photonic devices using compound semiconductor materials); detectors, sensors and displays (all types of sensor devices, smart sensors, MEMS, CCDs, emissive and non-emissive displays); modeling and simulation (analytical, numerical and statistical approaches to modeling all aspects of electron device fabrication, behavior, yield and reliability); vacuum electronics (materials

Message from the Educational Activities Chair

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Once a DL meeting site agreement is met, the Educational Activities Chair is notified to obtain final approval. The DL will be prepared to present both a technical lecture of about 45 minutes duration plus a 15 minute EDS overview and activities update. The Chapters would normally be expected to cover local expenses for the DLs to attend the meeting, although this could be waived in cases of financial hardships.

The DL is expected to submit a short report on the visit including any Chapter issues which should be brought to the attention of the EDS Executive Committee. We also envision this program to include organizations other than the Chapters when appropriate, e.g. IEEE Sections, universities with appropriate ties or interests common to those of EDS, etc.

For further information, comments and

EDS Distinguished Lecturer Program

EDS is seeking qualified candidates for its Distinguished Lecturer Program. It is designed to present leading-edge and exciting technical research to the EDS chapters and members as well as facilitate communications among members, chapters, EDS and IEEE. Anyone who routinely gives talks at major technical meetings should consider participating in this program. If you are interested, please contact the EDS Educational Activities Chair, Jerry M. Woodall; using the contact information listed on page 2.

and structures for vacuum electronic devices, vacuum microelectronic devices, generation and amplification of electromagnetic radiation.

Plenary talks

In addition to the regular paper sessions, the conference will include three plenary presentations dealing with developing technologies. This year's talks will be "Bioelectronics, Three Dimensional Memories and Hybrid Computers" by Prof. Robert Birge of Syracuse University, "Future DRAM Development and Possibility of Ferroelectric Memories" by Prof. Tarui of Wasada University, Japan and "Multimedia Markets and Products: The Stakes and the Players" by Dr. T. J. B. Swanenbug from Philips Corporate Research in The Netherlands.

Panel Sessions

The IEDM will also continue its tradition of holding lively and entertaining panel sessions promoting the free exchange of

suggestions regarding this program, please contact either me (Jerry Woodall) or Bill Van Der Vort, using the contact information listed on page 2.

Finally, adding the voting AdCom members to the DL inventory is meant to augment the current program. We are still soliciting other qualified candidates for the DL program. I encourage those interested in participating to send me a resume with information suitable for evaluating qualifications for presenting a lecture with a technical scope that is of interest to a large cross section of EDS members, e.g., invited or plenary talks at national or international technical society meetings.

— Jerry M. Woodall,

School of Electrical Engineering,
1285 Electrical Engineering Bldg.,
Purdue University,
West Lafayette, IN 47097-1285

ideas and opinions on subjects of crucial interest to the semiconductor and electron devices industry. This year's topics will be "Broadband and Wireless Communications — the New Technology Battleground?" and "Will Flash Memory replace Hard Disk Drives?" The panels will feature experts from around the world who will represent many points of view on these important topics.

Short courses

Traditionally, a very popular feature of the IEDM has been the Short Courses offered on the Sunday before the conference. These courses are presented by experts in the fields covered, and provide conference attendees with an opportunity to learn about new and emerging areas and to benefit from the experience and up-to-date knowledge of lecturers who are not only very active but lead the field. The two subjects to be covered this year are "Mixed Signal IC Technologies and Design" and "Advanced Device Characterization and Test Methodologies".

The short courses are held at the same location as the main conference, and since they are held on Sunday, they offer attendees the opportunity to take advantage of discounted air fares for trips that include a Saturday night stopover.

Late news papers

The submission date for regular papers has already passed, but a limited number of late papers will be accepted for presentation at the conference. If you have recent developments that you wish to publish at the conference, please submit an original of your proposed paper plus 25 copies to Melissa Widerkehr before September 21st.

Further information

For further information concerning the IEDM, please contact the Conference Manager, Melissa Widerkehr, IEDM, Suite 610, 1545 18th Street, NW, Washington, DC 20036, TEL # (202) 986-1137, FAX # (202) 986-1139.

Chapter Reports

Regions 1-6, 7 & 9

ED Chapters in the Eastern and Central United States

For most EDS members in the Eastern and Central United States, the summer was generally a period of low chapter activity. Like everyone else in the northern hemisphere, members probably spent the season enjoying such relaxing activities like vacations, cook-outs and going to the beach. Probably the single most important EDS event during the summer was the Device Research Conference (DRC) which was held Jun. 20-22 in Boulder, CO.

In anticipation of the busy Fall season, however, the Rochester, NY chapter started planning for their Fall seminars in the summer. One of their Spring seminars, delivered by Prof. T. P. Ma of Yale University, was quite a success. It attracted over 60 people, more than half of whom were EDS members. The topic of Prof. Ma's seminar was "MOS Gate Oxide Reliability and the Role of Fluorine." According to Sophie Verdonck-Vanderbroek, her chapter has also begun planning for its "18th Annual Electron Devices Activities in Western New York Conference" during the summer. This Conference will be held at the Rochester Institute of Technology on Nov. 2, 1994. Anyone interested in attending is encouraged to communicate with Sophie. She can be reached at E-MAIL: svv.wbst128@xerox.com or TEL # (716) 422-9796.

In Southeastern Michigan, the Trident chapter of the IEEE generally has its technical meetings jointly organized by the Antennas and Propagation (AP) Society, the Microwave Theory and Techniques (MTT) Society and the Electron Devices (ED) Society. In the Fall of 1993, the Chapter sponsored three seminars. According to Joe Burns, the first one of these seminars was held at Michigan State University in Oct. 1993. The speaker was Prof. Chen-To Tai of the University of Michigan. He lectured on "New insights into Hertz's theory of electromagnetism." The second seminar, which was held at the University of Michigan on Nov. 22, 1993, was part of the AP's Distinguished Lecturer program and it was delivered by Prof. Per-Simon Kildal of Chalmers University of Technology in Sweden. Prof. Kildal's talk was on "Artificially soft and hard surfaces in electromagnetics and their applications to antenna design." The last seminar in the Fall series was held on Dec. 7, 1993 at the University of Michi-

gan. The talk was presented by Prof. Francis T. S. Yu of the Pennsylvania State University and it was on "Optical neural networks; architecture, design and models." In the Spring of 1994, the Trident chapter had only one seminar, and it was held at the Chrysler Technology Center. This seminar was on a topic of particular current importance: it touched on one aspect of defense technology conversion for civilian applications. The seminar was presented by Mr. Donald F. Herrick of the Environmental Research Institute of Michigan. The title of Mr. Herrick's seminar was "Sensor simulation and signature prediction: state-of-the-art and application to the transportation industry." The discussion held at the end of the seminar illustrated how the sensor simulation codes originally developed for military applications could be used to support the development of commercial sensor systems in the transportation industry; for example, in intelligent cruise control and in collision avoidance systems. Like most other Chapters in the United States, the Trident Chapter, led by Joe Burns and Tim Grotjohn, started planning their Fall 1994 activities during the summer.

Joint Latin America AP/ED/MTT Chapter

Prof. Edval Santos at Universidade Federal de Pernambuco in Brazil reports that the Sociedade Brasileira de Microeletronica will be sponsoring the 4th Brazilian Microelectronics School, known locally as IV EBMicro, at Recife-Pe-Brazil from Jan. 15th through Jan. 20th, 1995. Those interested in attending may obtain additional information from Prof. Edval Santos who can be reached by E-MAIL: edval@df.ufpe.br or by regular mail at the following address: UFPE, Cidade Universitaria, 50670-901, Recife-PE-Brazil. The co-chair of the School, Dr. Gerson Machado, can be reached at: Department of Electronic Engineering, Information Section, Imperial College, Exhibition Road, London SW7 2BT, England or E-MAIL: g.machado@imperial.ac.uk.

— Elias D. Towe, Associate Editor

Santa Clara Valley ED Chapter

— by Prof. John D. Shott

The Santa Clara Valley chapter of the Electron Devices Society has had a successful 1993-1994 year. We have sponsored two half-day symposia on Advances in Semiconductor Device Technology. The first was

held on Jan. 28, 1994 with 120 attendees, and the second was held on Jun. 24, 1994 with 60 attendees.

We have also sponsored an interesting series of evening talks. Attendance at these meetings has averaged 50 attendees with the highest of 150. Titles and speakers for this past year include: "Measurement and Modeling of Velocity Overshoot in Silicon Inversion Layers" by Fariborz Assaderaghi, UC Berkeley; "Are Shrinking Dimensions and Die-per-Wafer Yields on a Collision Course? No, Not Yet — And the Reasons Why" by James Cunningham, Cunningham Technology Associates; "III-IV Technology and Components for the Wireless Communication Revolution" by Craig P. Snapp, Hewlett-Packard Co.; "High Resolution Liquid Crystal Displays" by Alan Lewis, Xerox Palo Alto Research Center; "Overview of FLASH Technology" by Chi Chang, Advanced Micro Devices, Inc.; "Stanford Ultra Low Power CMOS" by Jim Burr, Sun Microsystems; "Ni1000 Neural Network Application to Hand Print OCR" by Mark Holler, Intel.

San Diego AP/ED/MTT Chapter

— by Dr. Ralph Levy

The San Diego Chapter held 6 meetings in the 1993-1994 season, concluding early in March because the International Microwave Symposium (IMS) held at San Diego at the end of May was considered a "big one" for us. Since our previous report, the February meeting was honored by the 1993 MTT National Lecturer Prof. Paul Goldsmith of Cornell, who gave a fascinating talk on "Radiometric Imaging Systems and Application." His paper dealt with amazing technology that allows detection of metal or plastic objects on people at short range by imaging the emanating millimeter waves, i.e. no transmitter is required. The talk in March was given by Prof. Tatsuo Itoh of UCLA, in which he described some of the latest work in "Integrated Active Antennas." Both of these talks had content of interest to all three of our constituent societies.

The 1994 IMS was held May 23-27 in conjunction with 3 related Symposia, namely MMWMC, ARFTG and NTC. The associated Exhibition occupied over 100,000 sq. ft., and consisted of about 450 booths. The recession in the defense industry has caused a reduction in attendance, but it is certainly not dramatic. Total registration was about 8000, of which at least 1800 registered for the technical ses-

sions. All activities were held at the relatively new and spacious San Diego Convention Center. Facilities were excellent for simultaneously holding five regular sessions plus a very large open forum (poster) session. Over 30 ancillary sessions, including fourteen workshops, were held. For the first time, a workshop (on Wireless Communications) was held on the Sunday preceding the Symposium, and we were all amazed to see an attendance of 350. The Symposium appears to have been a great success.

Dallas ED Chapter

— by Prof. Zeynep Celik-Butler

Annually one to five meetings are held on the third Thursday of the month. For the year 1994-1995, meetings are planned for the months of October, January, February and March. Last year, Dr. Peter Blakey of SILVACO International gave a presentation on "The MASTER Framework: Advances in Device Modeling" and explained how power semiconductor CAD systems can be constructed by populating the MASTER framework with conforming process and device simulators.

Chicago ED Chapter

— by Prof. Carl R. Kannewurf

The Chicago Chapter of the Electron Devices Society recently sponsored a presentation by Dr. Richard Smart from the Amoco Technology Company entitled, "Optical Fiber Amplifiers and the Information Superhighway." The talk was held at the Motorola Company in Schaumburg, IL and was jointly sponsored by the Northwest Subsection and LEO Society Chapter.

In June, the ED Executive Council held its annual meeting and election of officers for 1994-95. The results are as follows: Dr. C. R. Kannewurf, Northwestern University, Chairman; Dr. Ron Nordin, AT&T Bell Labs., Vice Chairman; Norm Phoenix, International Components Corp., Secretary-Treasurer; Dr. Bruce Vojak, Amoco Technology Co., Program Chairman; Mike Banak, AT&T Bell Labs., Arrangement Chairman.

— Paul K. L. Yu, Associate Editor

Region 8

United Kingdom & Republic of Ireland MTT/ED/AP Joint Chapter

The Chapter Administrative Committee (AdCom) has recently been increased to 18 members, as summarized below:

T.H. Oxley, Private Consultant (Chairman); M.J. Howes, University of Leeds (Vice-Chairman); R.D. Pollard, University of Leeds (Secretary/Treasurer); S.J. Nightingale, Thorn-EMI Electronics; J.K.A. Everard, University of York; N. Williams, ERA Technology; J.A.C. Stewart, Queen's University of Belfast, M.J. Sisson, Marconi Radar and Control Systems; A.J. Seeds, University College London; L.E. Davis, University of Manchester; T.J. Brazil, University King's College London; P. Foster, Microwave and Antenna Systems; C.S. Aitchison, Brunel University; R.J. Collier, University of Kent; S.S. Gill, Defense Research Agency and J. Thraves, Private Consultant.

Since the EDS Newsletter July issue, the Chapter has welcomed a visit from the MTT-S Distinguished Lecturer, Ferdo Ivanek, who presented his talk on "Progress and Change in Microwave Radio Communications" at Edinburgh, Dublin and London.

Five events are planned from Oct. to Dec. 1994. Lectures include "Development of the Microwave Mixer — An Industrial Experience" by Terry Oxley, at Belfast on Oct. 6 and "Intelligent Driver Support" by Raglan Tribe, Lucas, in London on Dec. 7. Membership promotion includes a booth at Microwaves 94 on 25-27th October. Workshops of international interest include:

1) "CAE, Modeling and Measurement Verification" at the Wembley Conference Center, London on 24th October, in conjunction with Microwave 94. Cooperatively sponsored by the IEEE MTT-Society and the national IEE, the technical program, structured with a mix of formal and poster sessions, will contain parallel sessions on the broad themes of passive circuit analysis and modeling, and device and circuit models in system CAD. The keynote speaker on the first theme is Professor Linda Katehi, University of Michigan.

2) EDMO'94 "High Performance Electron Devices for Microwave and Optoelectronic Applications" at King's College, Strand, London on 14th November. Cooperatively sponsored by the IEEE ED and MTT Societies and the national IEE, the technical program will discuss the ever demanding requirements for advances in semiconductor materials, device processing and circuit design.

Germany ED Chapter

The first activity of the Germany Chapter was held on June 22nd at RWT11 Aachen (University of Technology, Aachen). Prof. Dr. Herbert Kroemer, University of California at Santa Barbara, Santa Barbara, CA, USA gave a talk on "Andreeve-Reflexionen

und Supraleitung in Quantisierten InAs/AlSb/Nb-Heterostrukturen." Planning is proceeding for further events.

Greece ED/MTT Chapter

Dr. Nikolaos Uzunoglu reported that the members of the Greek Chapter are preparing an intensive short course on "Microwave Design Techniques for Telecommunication Systems" to be held Oct. 1994. Colleagues from Balkan and Caucasus will be invited to attend the meeting. This activity is supported partly by the EU Commett program and by the Microwave and Fiber Optics Telecommunications Laboratory, Dept. Electrical and Communications Engineering, National Technical University, Athens, Greece. A similar course on "Medical Electromagnetism and Signal Processing" was held in Athens in Oct. 1993.

Egypt AP/ED/MTT Chapter

As of April 29, 1994, the joint AP/MTT Egypt Chapter decided to expand its composition and include the Electron Devices Society. The following three lectures have been planned for offering in Sept. 1994. They are: (1) Relativistic Electron Beam Devices, (2) CAD for Diode and MESFET Applications, and (3) Programmable Logic Devices. For further information, please contact Mr. Ibrahim A. Salem 17 Elqouba Street/3, Roxy Heliopolis, Cairo -11341, Egypt, TEL # 20-2-258-0256, FAX # 20-2-349-8217.

France ED/MTT Chapter

As of May 9, 1994, the Microwave, Theory & Techniques Society decided to include the Electron Devices Society as part of its France Chapter. The Chapter Chairman is Mr. John M. Magarshack, 52A Chemin de Hauts Besnards, 92500 Rueil-Malmaison, France, TEL # 33-1-4708-3707 (Home), FAX # 33-1-4985-3802. No activities have been reported so far.

Romania ED Chapter

The Romanian EDS Chapter was established in March 1992. The long tradition of this engineering field in Romanian education, research and industry has meant that it is the best represented in the IEEE Romanian Section, founded in 1990.

At present the Romanian EDS Chapter is managed by three officers who meet on a quarterly basis and is comprised of 24 members. They represent education, research and production entities mentioned above: twelve from universities, seven from research and five from industry. The mem-

bers of the chapter are committed to promote the progress in the field of electron devices in Romania, but are faced with significant difficulties, due to the current economic climate. In the past, most Romanian researchers in this field were practically isolated from the international community, by the absence of current technical publications and the difficulty in establishing personal contacts with workers abroad. This explains the main chapter concern of developing joint activities with other EDS Chapters and inviting distinguished lecturers from this field to participate at local chapter events. The 1993 Chapter Program included a 5-day intense course entitled "New Advances in Semiconductor Device Simulation," which consisted of morning lectures, followed by computer demonstrations of some modern device simulators. The main chapter activity was the organization of the 16th Annual Conference on Semiconductor (CAS), sponsored by the Research Institute for Electronic Components, the Romanian Academy and the Romanian Ministry of Research and Technology.

Switzerland CAS/ED Chapter

With the actual technical flourishing made around the video market accompanied with a battle in the definition of the compression algorithms and a standardization in the field of hyper object manipulation, the joint CAS/ED chapter in Switzerland decided to organize its first international and annual conference on advanced technologies. "AT'94: Swiss Multimedia" will be held Oct. 28, 1994 in Yverdon-les-Bains (Switzerland). It will be a forum of exchange in information and results of recent work on systems, circuits, technology processes and applications. The chapter chairman, Prof. D. Mlynek, has chosen to invite distinguished lecturers, and the conference will welcome Prof. Earl Swartzlander who will deliver a talk on computer architectures aimed for multimedia applications. Prof. Kunt (IEEE Fellow) will also give his view about the signal processing technology needed to achieve realistic applications. Mrs. Francoise Colaitis (Convenor of MHEG, JTC1/SC29.WG12) will have the pleasure of presenting the work and progress in the Hypermedia Object Expert Group. The concept and implications of ATM networks will be outlined by Prof. J.U. Le Boudec (formerly with IBM R&D Laboratories). Other invited speakers will provide insights in the new technology challenges offered by MCM (Multi Chip Module) concept. During the conference, companies involved in this

large market will be able to demonstrate their products and applications to the participants. This means that a parallel exhibition will take place at the same location allowing an even richer contact with the multimedia field. The Chapter continues to organize tutorial post-graduate meetings in the area of Fuzzy Logic, System Design and VLSI Testing. Scientific talks have been or will be also carried out by Hitoshi Miwa (Hitachi Ltd., Tokyo) on Associative memories (WAM), or Dr. Seitz (Paul Scherer Institute, Zurich) on photochips for instance. The entire program of activities planned can be obtained from Dr. J. Kowalczuk.

Some of the remaining activities planned for 1994:

- Mixed-Mode Modeling & Simulation, Oct. 3-5, 1994
- AT'94 Swiss Multimedia, Oct. 28, 1994
- Design Verification with Dracula, Nov. 9-11, 1994
- CHAOS: from basic concepts to applications, Nov. 25, 1994
- System, MCM and sensor testing, Dec. 5-9, 1994

The process of VHDL-A standardization, high level language suited for specification of analog systems, continues. The chapter is now constituting a library of analog components and building blocks to provide a common basis for system specification experiments. For any further information, please contact Dr. J. Kowalczuk (Secretary of the CAS/ED Chapter), E-MAIL: jacques.kowalczuk@leg.de.epfl.ch, TEL # 41-21-693-6981, 41-21-239-775, FAX # 41-21-693-4663, 41-24-239-772.

— Adrian Veron, Associate Editor

— Terry Oxley, Associate Editor

Region 10

Message from the Tokyo, Japan ED Chapter Chairman



Hisakazu Mukai

The EDS activities have brought technological progress and expansion to the electron

devices field and contributed to expansion in other fields, such as computer and telecommunications, which are helping to usher in a global era. At the end of 1993, there were a total of about 1000 members in the Tokyo EDS Chapter. This number increased by about 450 during the last 10 years, compared to about 200 for the previous decade. This reflects the increased international activities of Japanese engineers.

Extremely high technological specialization, increased R&D investment, and regional specialization in economy and technology are requiring the cooperation of individuals and groups of engineers independent of space and specialization considerations. This means IEEE activities are becoming much more meaningful internationally. The Tokyo Chapter wishes to enhance these activities by holding joint technical meetings with the SDM (Silicon Devices and Materials) Group and the ICD (Integrated Circuits and Devices) Group of the IEICE (Institute of Electronics, Information and Communication Engineers of Japan), and by discussing the IEDM papers in Japan. We are encouraging members to participate in the society by supporting their nomination for IEEE Awards and upgrading the level of membership. We also plan to make the communication paths with the local groups in Japan to activate the operation of Tokyo Chapter. I look forward to expanded IEEE EDS participation among Japanese engineers, contributing to the expansion of global electronics.

— Hisakazu Mukai,
Oki Electric Industry Co., Ltd.,
Hachioji, Tokyo, Japan

Other News From Tokyo, Japan ED Chapter

We hold domestic joint technical meetings with the IEICE twice a month on an average. For details, please contact Dr. F. Masuoka (SDM), R & D Center, Toshiba Corp., 1, Komukai Toshiba-cho, Saiwai-ku, Kawasaki, 210, Japan, TEL # +81-44-549-2075, FAX # +81-44-549-2268 and Prof. T. Enomoto (ICD), Faculty of Science and Engineering, Chuo University, 1-13-27, Kasuga, Bunkyo-ku, Tokyo, 112, Japan, TEL # +81-3-3817-1689, FAX # +81-3-3817-1681. The new address of the Secretary of the Tokyo EDS Chapter is: Dr. Jun Ueda, Semiconductor Industry Research Institute Japan, 23rd floor, Fukoku-Seimei Building, 2-2-2 Uchisaiwai-cho, Chiyoda-ku, 100 Tokyo, Japan, TEL # +81-3-3593-7243, FAX # +81-3-3593-7250.

— Hiroshi Iwai, Associate Editor



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PAPERS IN THE FOLLOWING AREAS ARE REQUESTED:

Analog and Mixed-Signal Circuits and Systems: Data converters, modulators, filters, high speed analog, low voltage techniques. Mixed analog-digital IC applications, disk read/write channels, RAMDACs.

Digital Signal Processing: Image compression, recognition, and enhancement particularly for digital video. Voice coding and recognition. Specialized processing function architectures. Digital filtering, encryption, HDTV, video conferencing, multimedia, graphics controllers, video drivers.

Communications: Data, voice and image transmission. Digital, analog modulation, equalization, error correction, coding, switching. SONET/SDH, ISDN, LAN/WAN/ATM and broadband applications. Wireless and RF submissions are encouraged.

Library Development and Design Methodology: Cell library generation and characterization, reusable and customizable megacells, Algorithm to Silicon design flows.

Custom Application Specific Circuits: Innovative designs for cell-based circuits, full custom ICs and ASIC memories. Novel design concepts, low power low voltage circuits, high-performance circuits, architectures or system applications (automotive, bio-medical, etc.) are of particular interest.

Gate Arrays and Programmable Devices: GA, EPLD, FPGA, PAL, PLA devices, circuits and architectures, as well as the CAD tools targeting these devices. Device applications are encouraged.

Design Automation - Design Capture: Logic and high-level synthesis and optimization, innovative design capture techniques, frameworks, user interfaces.

Design Automation - Physical Design: Silicon compilation, module generation, symbolic layout, automatic place and routing techniques, circuit parameter extraction and circuit verification.

Simulation and Modeling: Device or process modeling, circuit, functional, timing or logic simulation with emphasis on analog modeling, multi-chip modules and mixed-signal simulation

Fabrication and Assembly: Developments in process integration, quick-turn manufacturing, MOS, bipolar, BiCMOS, smart power and GaAs, multichip modules, package modelling, ESD protection, fiber optic transceivers.

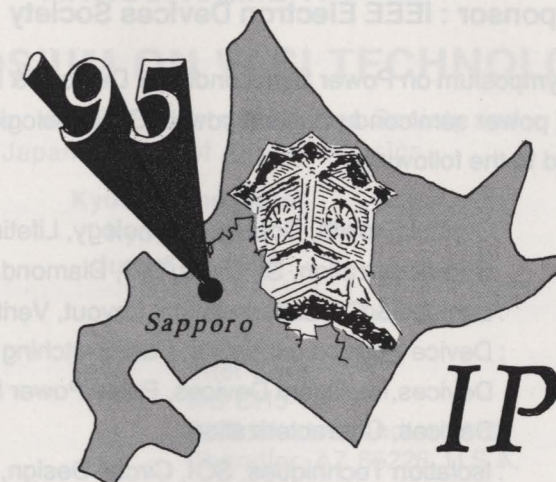
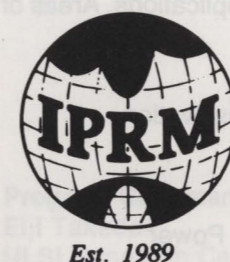
Testing and Reliability: Advances in design-for-testability (DFT), fault modeling and grading, IDDQ measurements, parametric characterization, high speed or high frequency measurement techniques and failure analysis.

FURTHER INFORMATION

For complete author kit instructions, registration information and general inquiries contact the Conference Manager: Melissa Widerkehr, Custom Integrated Circuits Conference, 1545 18th Street, NW, Suite 610, Washington, DC, 20036, Telephone: 202/986-2166, Fax: 202/986-1139.

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Second Announcement and Call for Papers
第7回 パワー半導体デバイス国際シンポジウム(ISPSD'95)
The Seventh International Symposium on Power
Semiconductor Devices & ICs(ISPSD'95)
Yokohama, Japan May 23-25, 1995



Sponsor : The Institute of Electrical Engineers of Japan
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Prospective authors must submit 50 copies of a 500 word summary on A4 size paper in English with 1 page supporting materials, headed by title of the paper, author's name, affiliation, mailing address, phone number, and FAX number, to Technical Program Chairman Dr. Yoshitaka Sugawara. **DEAD LINE FOR SUBMISSION OF SUMMARY is OCTOBER 15, 1994.** Notices of acceptance will be sent to authors by December 10, 1994.

The final manuscript in English for Proceedings will be required to submit no later than February 15, 1995.

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Papers presented by young researchers(35 years old or below at the time of the oral presentation) and based on their own work will be considered for the award. For the award application, it is requested that the abstract is identified as a young researcher paper at the time of submission and that the applicant is the first author of the paper and is presenting the paper at an oral session. The award presentation will be made at ISPSD'95.

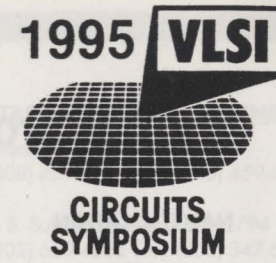
All questions or inquiries for further information regarding this symposium should be directed to the General Chairman Dr. Hiromichi Ohashi.

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Kyoto



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ANNOUNCEMENT

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A one-day workshop will be held on June 5, 1995, covering some aspects of VLSI technology.

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Deadline for Receipt of Summaries is January 9, 1995

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Electron Devices Society Meetings Calendar

(As of August 10, 1994)

DATE	NAME/LOCATION	CONTACT - ABSTRACT DEADLINE
1994		
Oct. 4-6	1994 IEEE INTERNATIONAL SOI CONFERENCE /White Elephant Resort, Nantucket Island, MA	Witek P. Maszara - Deadline: Past Due Tel: (410) 964-4051 Fax: (410) 992-5813
Oct. 10-11	1994 IEEE BIPOLAR/BICMOS CIRCUITS AND TECHNOLOGY MEETING /Marriott City Center, Minneapolis, MN	Janice V. Jopke - Deadline: Past Due Tel: (612) 934-5082 Fax: (612) 934-6741
Oct. 10-11	1994 INTERNATIONAL WORKSHOP ON DISPLAY MATERIALS /Hyatt Regency Hotel, Monterey, CA	Ralph Nadell - Deadline: Past Due Tel: (212) 620-3341 Fax: (212) 620-3379
Oct. 10-11	1994 INTERNATIONAL WORKSHOP ON ACTIVE-MATRIX LIQUID CRYSTAL DISPLAYS /Hyatt Regency Hotel, Monterey, CA	Miltiadis K. Hatalis - Deadline: Past Due Tel: (610) 758-3944 Fax: (610) 758-4561
Oct. 10-12	1994 IEEE INTERNATIONAL CONFERENCE ON COMPUTER DESIGN: VLSI IN COMPUTERS AND PROCESSORS /Royal Sonesta Hotel, Cambridge, MA	IEEE Computer Society - Deadline: Past Due Tel: (202) 371-0101 Fax: (202) 728-0884
Oct. 10-13	1994 INTERNATIONAL DISPLAY RESEARCH CONFERENCE /Hyatt Regency Hotel, Monterey, CA	Ralph Nadell - Deadline: Past Due Tel: (212) 620-3341 Fax: (212) 620-3379
Oct. 11-16	1994 ANNUAL SEMICONDUCTOR CONFERENCE /Sinaia Hotel, Sinaia, Romania	Doina Vancu - Deadline: Past Due Tel: 401-633-30-40 Fax: 401-312-75-19
Oct. 16	1994 GALLIUM ARSENIDE RELIABILITY WORKSHOP /Wyndham Franklin Plaza Hotel, Philadelphia, PA	Anthony A. Immorlica - Deadline: Past Due Tel: (315) 456-3514 Fax: (315) 456-0695
Oct. 16-19	1994 IEEE GALLIUM ARSENIDE INTEGRATED CIRCUITS SYMPOSIUM /Wyndham Franklin Plaza Hotel, Philadelphia, PA	Donald C. D'Avanzo - Deadline: Past Due Tel: (707) 577-2644 Fax: (707) 577-2036
Oct. 16-19	1994 IEEE INTERNATIONAL INTEGRATED RELIABILITY WORKSHOP (Formerly - Wafer Level Reliability Workshop) /Stanford Sierra Camp, South Lake Tahoe, CA	Tin Yau Ying - Deadline: Past Due Tel: (617) 271-8170 Fax: (617) 271-2734
Oct. 17-19	1994 INTERNATIONAL CONFERENCE ON MATERIALS FOR MICROELECTRONICS /Hotel Fera Palace, Barcelona, Spain	Juliet A. Upton - Deadline: Past Due Tel: 44-71-235-1391 Fax: 44-71-823-1638
Oct. 28	1994 IEEE INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGIES /Swiss Multimedia, Y-Parc, Yverdon, Switzerland	Jacques Kowalczyk - Deadline: Not Applicable Tel: 41-21-693-69-81 Fax: 41-21-693-46-63
Nov. 2	1994 IEEE ELECTRON DEVICES ACTIVITIES IN WESTERN NEW YORK CONFERENCE /Chester F. Carlson Center for Imaging Science, Rochester Institute of Technology, Rochester, NY	Sophie Verdonck-Vandebroek - Deadline: 10/1/94 Tel: (716) 422-9796 Fax: (716) 422-1035
Nov. 6-10	1994 IEEE INTERNATIONAL CONFERENCE ON COMPUTER-AIDED DESIGN /Red Lion Hotel, San Jose, CA	IEEE Computer Soc. - Deadline: Past Due Tel: (202) 371-0101 Fax: (202) 728-0884
Nov. 14	1994 WORKSHOP ON HIGH PERFORMANCE ELECTRON DEVICES FOR MICROWAVE AND OPTOELECTRONIC APPLICATIONS /King's College London, Strand, London, England	Ali A. Rezazadeh - Deadline: 9/15/94 Tel: 44-71-873-2879 Fax: 44-71-836-4781
Nov. 14-15	1994 IEEE/SEMI ADVANCED SEMICONDUCTOR MANUFACTURING CONFERENCE AND WORKSHOP /Hyatt Regency Hotel, Cambridge, MA	Margaret M. Kindling - Deadline: Past Due Tel: (202) 457-9584 Fax: (202) 659-8534
Nov. 14-16	1994 TOPICAL CONFERENCE ON THE SYNTHESIS AND PROCESSING OF ELECTRONIC MATERIALS /San Francisco Hilton Hotel, San Francisco, CA	Denise DeLuca - Deadline: Past Due Tel: (212) 705-7344 Fax: (212) 752-3297
Dec. 5-9	1994 IEEE WORLD CONFERENCE ON PHOTOVOLTAIC ENERGY CONVERSION /Hilton Waikoloa Village, Waikoloa, HI	Dennis J. Flood - Deadline: Past Due Tel: (216) 433-2303 Fax: (216) 433-6106
Dec. 7-10	1994 IEEE SEMICONDUCTOR INTERFACE SPECIALISTS CONFERENCE /Catamaran Resort Hotel, San Diego, CA	Robert E. Stalhush - Deadline: Past Due Tel: (202) 767-3357 Fax: (202) 404-7194
Dec. 11-14	1994 IEEE INTERNATIONAL ELECTRON DEVICES MEETING /San Francisco Hilton & Towers, San Francisco, CA	Melissa Widerkehr - Deadline: Past Due Tel: (202) 986-1137 Fax: (202) 986-1139
1995		
Jan. 15-20	1995 BRAZILIAN SCHOOL OF MICROELECTRONICS /Cidade Universitaria, Recife, Brazil	Edval J.P. Santos - Deadline: Not Applicable Tel: 55-81-271-01-11 Fax: 55-81-271-03-59

DATE	NAME/LOCATION	CONTACT - ABSTRACT DEADLINE
Jan. 31-Feb. 2	1995 IEEE MULTI-CHIP MODULE CONFERENCE /The Coconut Grove, Santa Cruz, CA	Lisa Pascal - Deadline: Past Due Tel: (408) 459-2263 Fax: (408) 459-4829
Feb. 15-17	1995 IEEE INTERNATIONAL SOLID-STATE CIRCUITS CONFERENCE /San Francisco Marriott, San Francisco, CA	Diane S. Suiters - Deadline: 9/11/94 Tel: (202) 639-4255 Fax: (202) 347-6109
Mar. 21-23	1995 NATIONAL RADIO SCIENCE CONFERENCE /Alexandria University, Alexandria, Egypt	Ibrahim A. Salem - Deadline: 10/15/94 Tel: 20-2-258-0256 Fax: 20-2-349-8217
Mar. 23-25	1995 IEEE INTERNATIONAL CONFERENCE ON MICROELECTRONIC TEST STRUCTURES /New Public Hall, Nara, Japan	Yukinori Kuroki - Deadline: Past Due Tel: 81-92-641-1101 Fax: 81-92-641-5866
April 3-6	1995 IEEE INTERNATIONAL RELIABILITY PHYSICS SYMPOSIUM /Riviera Hotel, Las Vegas, NV	Joseph W. McPherson - Deadline: 9/23/94 Tel: (214) 995-2183 Fax: (214) 995-2932
Apr. 20-22	1995 IEEE INTERNATIONAL WORKSHOP ON CHARGE-COUPLED-DEVICES AND ADVANCED IMAGE SENSORS /Dana Point Resort, Dana Point, CA	Eric R. Fossum - Deadline: 12/16/94 Tel: (818) 393-0045 Fax: (818) 354-3128
May 1-4	1995 IEEE CUSTOM INTEGRATED CIRCUITS CONFERENCE /Santa Clara Convention Center & Westin Hotel, Santa Clara, CA	Melissa Widerkehr - Deadline: 12/14/94 Tel: (202) 986-2166 Fax: (202) 986-1139
May 9-13	1995 IEEE INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS /Hokkaido University Conference Hall, Sapporo, Hokkaido, Japan	Melissa Estrin - Deadline: 11/25/94 Tel: (908) 562-3896 Fax: (908) 562-8434
May 15-16	1995 IEEE MICROWAVE AND MILLIMETER-WAVE MONOLITHIC CIRCUITS SYMPOSIUM /Orange County Convention/Civic Center, Orlando, FL	Val Peterson - Deadline: 11/11/94 Tel: (707) 577-2304 Fax: (707) 577-4090
May 16-18	1995 UNIVERSITY/GOVERNMENT/INDUSTRY MICROELECTRONICS SYMPOSIUM /J.J. Pickle Research Center, University of Texas, Austin, TX	Mahboob Khan - Deadline: 11/30/94 Tel: (408) 749-4213 Fax: (408) 749-5585
May 23-25	1995 IEEE INTERNATIONAL SYMPOSIUM ON POWER SEMICONDUCTOR DEVICES AND INTEGRATED CIRCUITS /Yokohama Convention Center, Yokohama, Japan	Toshiaki Yachi - Deadline: 10/15/94 Tel: 81-422-59-3129 Fax: 81-422-59-2172
May 30-June 2	1995 INTERNATIONAL SYMPOSIUM ON ELECTRON, ION AND PHOTON BEAMS /Scottsdale Conference Resort, Scottsdale, AZ	John Randall - Deadline: 1/6/95 Tel: (214) 995-2723 Fax: (214) 995-2836
May 31-June 2	1995 INTERNATIONAL SYMPOSIUM ON VLSI TECHNOLOGY, SYSTEMS AND APPLICATIONS /Hyatt Hotel, Taipei, Taiwan	Genda J. Hu - Deadline: 12/16/94 Tel: (408) 943-4861 Fax: (408) 943-2118
June 6-8	1995 IEEE SYMPOSIUM ON VLSI TECHNOLOGY /Kyoto Grand Hotel, Kyoto, Japan	Richard A. Chapman - Deadline: 1/9/95 Tel: (214) 995-2366 Fax: (214) 995-1916
June 7-10	1995 CONFERENCE ON INSULATING FILMS ON SEMICONDUCTORS /Grand Hotel de Paris, Villard-de-Lans, France	Sorin Cristoloveanu - Deadline: 10/21/94 Tel: 33-76-85-60-40 Fax: 33-76-85-60-70
June 19-21	1995 IEEE DEVICE RESEARCH CONFERENCE /University of Virginia, Charlottesville, VA	Umesh K. Mishra - Deadline: Not Available Tel: (805) 893-3586 Fax: (805) 893-2149
June 25-29	1995 IEEE TRANSDUCERS - INTERNATIONAL SOLID-STATE SENSORS AND ACTUATORS CONFERENCE /City Conference Center, Stockholm, Sweden	Beril Hok - Deadline: 1/1/95 Tel: 46-21-80-00-99 Fax: 46-21-80-10-09
July 30-Aug. 4	1995 IEEE INTERNATIONAL VACUUM MICROELECTRONICS CONFERENCE /Portland Marriott Hotel, Portland, OR	Judith A. Sjoberg - Deadline: Not Available Tel: (505) 989-4735 Fax: (505) 989-1073
July 31-Aug. 5	1995 INTERSOCIETY ENERGY CONVERSION ENGINEERING CONFERENCE /Buena Vista Palace Hotel, Orlando, FL	John Corcoran - Deadline: 11/25/94 Tel: (212) 705-7054 Fax: (212) 705-7671
Aug. 2-4	1995 IEEE CORNELL CONFERENCE ON ADVANCED CONCEPTS IN HIGH SPEED SEMICONDUCTOR DEVICES AND CIRCUITS /Cornell University, Ithaca, NY	George N. Maracas - Deadline: Not Available Tel: (602) 965-2562 Fax: (602) 965-8118
Aug. 13-16	1995 IEEE NON-VOLATILE SEMICONDUCTOR MEMORY WORKSHOP /Hyatt Monterey, Monterey, CA	Rustom Irani - Deadline: 3/31/95 Tel: (510) 498-1729 Fax: (510) 657-8495
Aug. 21-24	1995 INTERNATIONAL CONFERENCE ON SOLID-STATE DEVICES AND MATERIALS /International House, Osaka, Japan	Bus. Ctr. Academic Soc. - Deadline: 4/15/95 Tel: 81-3-5814-5800 Fax: 81-3-5814-5823
Aug. 21-24	1995 INTERNATIONAL CONFERENCE ON APPLICATIONS OF DIAMOND FILMS AND RELATED MATERIALS /NIST, Gaithersburg, MD	Albert Feldman - Deadline: 1/30/95 Tel: (301) 975-5740 Fax: (301) 990-8729
Aug. 28-Sept. 1	1995 IEEE INTERNATIONAL SYMPOSIUM ON COMPOUND SEMICONDUCTORS /Shilla Hotel, Cheju Island, Korea	Michael M. Shur - Deadline: Not Available Tel: (804) 924-6109 Fax: (804) 924-8818

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(As of August 10, 1994)

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- Paul Rappaport Award	S.J. Hillenius
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Meetings	B.F. Griffing
Membership	M.H. White
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EDS Newsletter	K. Shenai
Electron Device Letters	J.R. Brews
Electron Devices, Trans. on	R.P. Jindal
Applied Superconductivity, Trans. on	A.F. Clark
Circuits and Devices Magazine	R.W. Waynant
Electronic Materials, Jrnl. of	T.C. Harman
Lightwave Technology, Jrnl. of	R.C. Alferness
Microelectromechanical Systems, Jrnl. of	W.S. Trimmer
Semiconductor Manufacturing, Trans. on	G.C. Cheek
Solid-State Circuits, Jrnl. of	A.A. Abidi
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- Advisory Board	L.A. Kasprzak
- Department Editor	J.M. Stork
Custom Integrated Circuits Conf. Com.	L.A. Christopher
Device Research Conf. Executive Com.	J.C. Campbell
IEEE Ctr. for the Hist. of Elec. Engr.	L.A. Kasprzak
IEEE Press	K.K. Ng
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There are currently 55 EDS chapters. Chapter Chairs were listed in the July issue of the Newsletter.

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