1995 IEEE International Electron Devices Meeting (IEDM)


The IEDM is the world's premier international forum for reporting advances in the technology, design, manufacturing, physics and modeling of electron devices, ranging from deep submicron MOSFETs to flat-panel displays, and from compound semiconductor materials to new memory architectures.

The conference attracts authors, attendees and guest speakers from all over the world, and it provides an excellent opportunity to meet colleagues and to keep up with the state-of-the-art in a broad range of disciplines.

Conference Location — Washington, D.C.

The IEDM returns to Washington, D.C. in 1995, to the newly renovated Washington Hilton and Towers hotel. All of the meeting rooms and sleeping rooms have been thoroughly updated and renovated, and there is a new front desk. A particularly attractive and useful aspect of the hotel renovation is the all-new front lobby, which features many areas where it is possible to sit and have quiet, private conversations.

(continued on page 3)
Device Electronics Society

A Message from the Editor

This is the second time that I am addressing you as the Editor of the new EDS Newsletter. My first column appeared in the October 1994 issue, and since then, two important changes have taken place. First, we are now featuring four EDS-sponsored/conjoint-sponsored conferences per issue. Second, we have increased the number of pages available for our Newsletter Associate Editors to report regional and chapter news to four pages per issue. This change will help accomplish one of the most important objectives of the newsletter to provide our members an opportunity to report on local news.

Recent, Paul Chung, one of the two Region 10 Associate Editors, has informed us that he has found it necessary to resign from that post because of other commitments. I would like to thank Paul for his service to all of the officers and AdCom members for his service to the Society — such jobs are of great value to the Society and are usually underappreciated. His fine job will be most appreciated. Beginning this issue, Cuong T. Nguyen will take over the responsibility of Paul Chung. A brief biography of Cuong follows. I welcome Cuong to the editorial board of the newsletter and look forward to working with him on this important assignment.

Cuong T. Nguyen was born in Can Tho, Vietnam in 1956. He completed the B.S. degree with Highest Honors in EE and BS at the University of California at Berkeley in 1986, and the M.S. and Ph.D. degrees in EE at Stanford University in 1988 and 1993. While at Berkeley he received the Kraft Scholar award, the Alumni and the Chancellor's/friends Scholarship. He is a recipient of several NSF fellowship and was an IBM research fellowship. He joined the faculty of Electrical and Electronic Engineering in the

EDS AdCom Members-at-Large

Term Expires in 1995

- S. Arai
- B.P. Griffling
- S.B. Bennett

Term Expires in 1996

- W.D. Johnson, Jr.
- R.P. Jindal
- H. Iwasaki
- J.K. Kuri
- T.K. Lee
- J. Liu
- T. Naka
- T. Sato
- R. Shin
- K. Ueda
- M. Vatanen

President: W. Dester Johnson, Jr. M.I.T. Bell Laboratories Tel: (908) 589-1543 Fax: (908) 589-9101 E-mail: w.dester@ee.lbl.gov

Vice President: Louis M. Parrillo Motorola Tel: (312) 354-2050 E-mail: lparrillo@motorola.com

Secretary-Treasurer: Lucian A. Kozack Philco-Ford Corp. P.O. Box 1331 Piscataway, NJ 08855-1331 Tel: (201) 579-7621 Fax: (201) 579-7625 E-mail: lucian@piscataway.com

Newsletter Associate Editors:

C. Soh & Associates

Executive Office, IEEE-USA, 345 E. 47th St., New York, NY 10017-2394 Printed in the U.S.A. One dollar ($1.00) per member per year is included in the Society fees for this newsletter. The IEEE, 345 E. 47th St., New York, NY 10017-2394, is a tax-exempt organization under section 501(c)(3) of the Internal Revenue Code. Donations are deductible to the extent allowed by law. IEEE member subscription is voluntary. There is no single rate for nonmembers. Permission is granted by the IEEE to republication of these materials provided that copies are not used or distributed for direct commercial advantage, and the title of the date and its publication appear on each photo.
1995 IEEE Semiconductor Interface Specialists Conference (SISC)

The 1995 Semiconductor Interface Specialists Conference (SISC) will be held December 7-9, 1995 in Charleston, SC immediately prior to IEDM. The SISC provides a unique forum for device engineers, solid-state physicists, and materials scientists to discuss issues of common interest. Discussions after the talks and during the poster sessions are encouraged. The conference and activities set provide many opportunities for informal discussions. Some of the interests included are the various semiconductor interfaces, the physics of insulating thin films, and the interaction among materials science, device physics, and state-of-the-art technology issues. One of the main goals of the conference is to provide an environment that encourages interchange between scientific and technological issues. The SISC emphasizes Si-based devices, including Si only.

The year will be the twenty-sixth meeting of the SISC. The first Interface Specialists Conference was held in 1969 in Las Vegas, and the invitation-only attendees discussed the topic of the day: silicon. Since the first meeting held in 1973, the conference has been held annually. By then, "Semiconductor" had been added to the conference title giving the conference name. The SISC now alternates between the east and west coasts and meets just prior to IEDM. While the SISC has remained focused on silicon-based technology, topics have evolved as integrated circuit fabrication technology advanced. The seven invited speakers for this year's conference span the breadth of research areas covered:

- A rapidly growing technology area for flat panel displays is the use of thin film transistors. John Batey from Xerox Corporation will present Technology and Science in the Development of Thin Film Transistors for Active Matrix LCDs.

- A new area of interest for the SISC is silicon carbide, and John Donnelly from Purdue University will introduce the session by speaking on "Electrical Properties and Device Applications of Thermally Oxidized Silicon Carbide."

- Despite years of study, the initial growth of SOI is still not well understood. Eric Gerstken from Rutgers University will give a talk entitled "Medium Energy Ion Scattering Studies of Silicon Oxidation in the S-0.5 A regime."

- Measuring the quality of thin gate oxides is a technological and scientific challenge that will be addressed by Masataka Hsiose from Hiroshima University in his talk "Structural and Electrical Characterization of Ultrathin Gate Oxides and Their Interfaces."

- Reducing boron interpenetration and increasing oxide reliability have promoted research of nitrogen inclusion into SOI. Gerald Lucknau from North Carolina State University will give a talk "N+Atom Incorporation and Dangling-Bond Defects in Silicon Oxide and Nitride Films."

- A novel technique for introducing hot electrons into SOI will be presented by Rudolf Ludeke from IBM Corporation; his talk is "Transport Issues of Spin-Induced Hot Electrons in MOS Structures."

- Michael Petry from the University of Durham will expand the horizons of gate insulators normally considered at the SISC in his talk entitled "Molecular Engineering Using Thin Organic Films."

This year the SISC is instituting an award to recognize outstanding Ph.D. theses. It will be given to the best student presentation, Ed Nicollant was a pioneer in the exploration of metal oxide semiconductor (MOS) systems. His contributions were important to establishing the SISC in its early years and he served as the Technical Chair in 1973. He wrote the definitive book on interface and near-interface defects in MOS devices measured by capacitance-voltage techniques.

While the heart of the conference is its invited and contributed talks and poster presentations, the success of SISC depends on the breadth of research areas covered and the enthusiasm of the attendees. The poster reception on Thursday evening, the spread of hors d'oeuvres and wine will encourage lively discussions. Friday afternoon will be free of sessions, so that there will be time to "interact" with each other and/or explore Charleston. Another highlight of the conference will be the limerick contest held during Friday evening's banquet. Unleash your literary zeal and join in the fun!

This year, the SISC moves to a new location, the Mills House Hotel in Charleston, South Carolina. Steeped in unique South Carolina charm, the Mills House Hotel was built in the early 1850's and is located in the heart of the city's 300-year-old historic district. Downtown in the porches, hallways and meeting rooms, period antiques, crystal chandeliers, and rare oil paintings provide the perfect ambience for informal meetings or relaxation. All of the guest rooms have been decorated in custom fabrics and wall coverings, and have furnishings indicative of the 19th century. The hotel is conveniently located for domestic and international travel - only 20 minutes from the Charleston International Airport.

From the Mills House Hotel, it is an easy walk to the tree-lined Battery Park, the downtown Market, and the elegant 18th- and 19th-century restored homes. Within several blocks there are numerous fine restaurants, wonderful antique shops, and a three-day period. Individual session frames address production implementation of enabling semiconductor technologies, cost/benefit analyses of manufacturing strategies, metrology for feedback and control of manufacturing. CIM (computer integrated manufacturing) strategies, process technology for yield improvement and cost reduction, equipment productivity, achieving ROI from customer/supplier relationships, information flow processing, total defect detection, and team efforts and employee decision empowerment in the management process. The conference program will be rounded out with a poster session on manufacturing techniques, process technology improvements, tutorials on TOC and USL multilevel metallization, and panel workshops on the National Semiconductor Technology Roadmap, and an Industry Based Costing. Invited talks are scheduled for a number of sessions, beginning with a keynote address by Michael R. Splinter, Corporate Vice President and General Manager of Components Manufacturing, Intel Corporation, and extending to a review of the economic status of the industry by Clark Fuls, Senior Industry Analyst. Discussion (an update of a very well received 1994 presentation). In addition, an international session comprised of speakers from Europe, Japan, Korea, and Russia will highlight manufacturing issues in those regions.

ASMC was launched in 1990 as a regional adjunct to the SEMI/SECMAC East Coast equipment exposition. Since then, thanks to the continued support and active cadre of industry volunteers who recognized the need for an accessible East Coast forum (continued on page 4)
1995 IEEE International Integrated Reliability Workshop (IRW)

Since 1982, the Integrated Reliability Workshop (IRW) and its predecessor, the Wafer Level Reliability Workshop, have provided a unique environment for envisioning, developing, and testing the opportunity to interact with reliability engineering professionals in structured (Discussion Groups) as well as informal settings (Posters, commu-
nal meals, free time) to provide the environment for true breakthroughs in understanding and paradigm shifts.

The 1995 Workshop will focus on the implementation of a Wafer Level Reliability (WLR) program, new methods and techniques of WLR measurements, development of the Building-in-Reliability (BIR) approach, and the role that WLR can have in supporting BIR. We will also continue to explore approaches for bringing product reliability assessment upstream into the technology development and product manufacturing cycle. The eventual goal is to move reliability assessment from its current location (at the end of the development and manufacturing process) forward to points of device conception, process definition, design, and manufacturing implementation.

It is expected that approximately twenty papers will be presented during the Workshop. The Call for Papers requested input in the following topics:

**Implementation of WLR:**
- Successes/failures of WLR applications
- Company WLR programs and infrastructure
- WLR correlation to reliability defects, electrical measurements, or other classical reliability parameters

**WLR Development:**
- New WLR structures, techniques,
- Methodology of analysis,
- Analytical and computer techniques

The ASMC 95 conference venue at the Cambridge Hyatt Regency in Massachusetts is adjacent to the Charles River, with walking distance of MIT and Harvard, and directly across from downtown Boston. Though mid-November weather is usually brisk, in milder years traces of New England autumn foliage linger on, providing a colorful respite for those who choose the riverfront paths. Abuzz with preholiday activity and spirit at this time of year, greater Boston offers visitors a wide range of attractions.

For further information, contact Margarete Kindling at SEMI (DC), 805, 15th St., Suite 810, Washington, DC 20005; TEL: (202) 289-0440; FAX: (202) 289-0441; E-mail: mkinding@semi.org.

-- Margarette Kindling
SEMI
Washington, DC 20005

Keynote Address: Technical Papers, Tutorials, and Poster Sessions to interact with reliability engineering professionals in structured (Discussion Groups) as well as informal settings (Posters, communal meals, free time) to provide the environment for true breakthroughs in understanding and paradigm shifts.

The 1995 Workshop will focus on the implementation of a Wafer Level Reliability (WLR) program, new methods and techniques of WLR measurements, development of the Building-in-Reliability (BIR) approach, and the role that WLR can have in supporting BIR. We will also continue to explore approaches for bringing product reliability assessment upstream into the technology development and product manufacturing cycle. The eventual goal is to move reliability assessment from its current location (at the end of the development and manufacturing process) forward to points of device conception, process definition, design, and manufacturing implementation.

It is expected that approximately twenty papers will be presented during the Workshop. The Call for Papers requested input in the following topics:

**Implementation of WLR:**
- Successes/failures of WLR applications
- Company WLR programs and infrastructure
- WLR correlation to reliability defects, electrical measurements, or other classical reliability parameters

**WLR Development:**
- New WLR structures, techniques,
- Methodology of analysis,
- Analytical and computer techniques

The ASMC 95 conference venue at the Cambridge Hyatt Regency in Massachusetts is adjacent to the Charles River, with walking distance of MIT and Harvard, and directly across from downtown Boston. Though mid-November weather is usually brisk, in milder years traces of New England autumn foliage linger on, providing a colorful respite for those who choose the riverfront paths. Abuzz with preholiday activity and spirit at this time of year, greater Boston offers visitors a wide range of attractions.

For further information, contact Margarete Kindling at SEMI (DC), 805, 15th St., Suite 810, Washington, DC 20005; TEL: (202) 289-0440; FAX: (202) 289-0441; E-mail: mkinding@semi.org.

-- Margarette Kindling
SEMI
Washington, DC 20005

1994 Paul Rappaport Award

The Paul Rappaport Award is given each year to honor the author(s) of the best paper that has appeared in an EDS publication in the preceding calendar year. The recipient(s) is awarded a certificate and a check for $1,000, presented at the International Electronic Devices Meeting (IEDM).

The paper entitled, "Room-temperature Single-Electron Memory" by Kazuo Yano, Tomoyuki Ishii, Takashi Hashimoto, Takashi Kobayashi, Fumio Murai and Koichi Seki was recognized as the best paper appearing in an EDS publication in 1994. The paper was published in the September, 1994 issue of IEEE Transactions on Electron Devices. The 1994 award will be presented at the IEDM on December 11, 1995 in Washington, DC.

The following are brief biographies of the six winners who are all employees of the Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan.

Kazuo Yano

Kazuo Yano received the B.S., M.S., and Ph.D. degrees in physics from Waseda University, Japan, in 1982, 1984, 1993, respectively. Since he joined the Central Research Laboratory, Hitachi, Ltd., in 1984, he has studied MOS/bipolar devices for low-temperature VLSIs, CMOS/BCD logic circuits, and single-electron devices. From 1991 to 1992 he was a Visiting Scientist at the Arizona State University. He is a co-author of the book Silicon-Based Heterojunction Devices (Mansen, 1991). He is a member of the IEEE, the American Physical Society, the Japan Society of Applied Physics, and the IECE of Japan.

Tomoyuki Ishii

Tomoyuki Ishii was born in Tokyo, Japan, on July 31, 1967. He received the B.S. degree in applied physics and the M.S. degree in physics from Waseda University in 1990 and 1992, respectively. He joined the Hitachi Central Research Laboratory, Tokyo, Japan, in 1992. His research interests include quantum effect devices and their applications. Mr. Ishii is a member of the Institute of Electronics, Information and Communication Engineers of Japan and the Japan Society of Applied Physics.

Takashi Hashimoto

Takashi Hashimoto was born in Yama-

gata, Japan, on April 1, 1960. He received the B.S. and M.S. degrees in Applied Chemistry from Tohoku University, in 1983 and 1985, respectively. He joined the Central Research Laboratory, Hitachi, Ltd., in 1985 and has been engaged in the research and development of polycrystalline thin film transistors for high density DRAM, 4-Megabit or beyond. He is now with the Semiconductor & Integrated Circuits Division. His present interests are focused on developing process and device engineering for flash EEPROM products.

Takashi Kobayashi

Takashi Kobayashi was born in Nagano, Japan, in 1961. He received the B.S. and M.S. degrees in metal processing from Tohoku University, Sendai, Japan, in 1984 and 1986, respectively. In 1986, he joined the Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan, where he has been engaged in research and develop-

ment of polycrystalline Si processing. Mr. Kobayashi is a member of the Japan Society of Applied Physics.

Fumio Murai

Fumio Murai received the B.S. degree in 1969 and M.S. degree in 1971 in electric engineering from Kobe University, Kobe, Japan. After he joined Hitachi Central Research Laboratory, Hitachi Ltd., in 1971, he worked on the III-V compound semiconductor field-effect transistors. Now he is working on electron beam lithography, especially on resist process and proximity effect correction techniques. His current interest is a fast hardware correction of the electron beam proximity effect. He is a member of Japan Society of Applied Physics.

Koichi Seki

Koichi Seki (S76-M81) received the B.S., M.S., and Ph.D. degrees in electronic engineering from the University of Tokyo, Japan, in 1976, 1978, and 1981, respectively. Since he joined the Central Research Laboratory, Hitachi, Ltd., he has been engaged in the research and development of field-effect transistors, non-volatile memories, single electron devices and low power SI LSI's. Currently he is a Senior Researcher at the laboratory. From 1986 to 1987, he was a Visiting Industrial Fellow at the Department of EEECS, University of California, Berkeley. Dr. Seki received the Young Engineer Award from the Institute of Electronics and Communication Engineers of Japan in 1985.

--- Steven J. Hillenius
AT&T Bell Laboratories
Murray Hill, NJ 07974-0636

October 1995  IEEE Electronic Devices Society Newsletter
April 1995 AdCom Meeting Report

The Spring Meeting of the Electron Device Society Administrative Committee (AdCom) took place at the Hilton Hotel in Santa Clara, preceding the Custom Integrated Circuits Conference, on April 30, 1995. A number of new and continuing business items that are of interest to members of the EDS were discussed at length.

EDS World-Wide Web Home Page
Liao Dron, an Assistant Professor at Northeastern University, has agreed to serve as the EDS World-Wide Web Home Page Editor. The EDS Home Page will be accessed as a tag of the IEEE Home Page, or directly at the following address: "http://www. wcc.ece.nw.edu/eds/EdsHome.html which contains a great deal of information about EDS: such as a meetings calendar, how to join IEEE and/or EDS, how to subscribe to periodicals available from EDS, and the tables of contents of the periodicals' current issues. It is being designed to be interactive, so that people can ask for information, apply for membership, etc., and it will eventually include the current issue of the EDS Newsletter, online EDS membership applications, and expanded information about all EDS conferences.

Lisao would like suggestions as to content of the EDS Home Page, and can be contacted at the following http://www.wcc.ece.nw.edu/eds/Email address: ldron@ieee.org.

Globalization of the EDS

Mike Adler reported on the very successful efforts to establish EDS chapters in Region 8, which comprises Europe, the Middle East, and Africa. Eleven new chapters have been established in Region 8.

The future plans for the EDS chapters in Region 8, December, two more are well along, and another in Moscow, is currently being organized. This results in a total of 24 chapters as of the end of July, and it is expected that the number should eventually reach more than triple the original number that existed before the globalization efforts were initiated. Lou Parrillo, Mike Adler and Irene Majosz will be hosting the 3rd Annual Region 8 Chapters meeting on September 24th in conjunction with the European Solid-State Device Research Conference in the Hague, The Netherlands.

The activity in Region 10 is similarly intense, as reported by Jim Clemens. This is a very large geographical area, including Japan, Taiwan, Hong Kong, Korea, people's Republic of China, Thailand, Singapore, and Australia. It is clear that the field of electronics [and subsequent EDS activities] are in very different stages of development in these countries, so communications between them must be done with care.

It was pointed out that this Newsletter may be the first successful vehicle to do just that.

Lew Terman, Jim Clemens and Shijiro Aizai visited Hong Kong, Taipei, Seoul, and Tokyo in May, while Ren'aku Ik-
daid visited India June. Several trips to Region 10 are planned in the near future.

The EDS President, Dexter Johnson, will travel to Australia and New Zealand in August, with the hopes of establishing one or two new chapters. Beng will be visited by Lew Terman, Jim Clemens and Tak Ning in October, and Canning Yang will go to Hong Kong in November.

Members, Sections, and Chapters

Mark White reported that he and his staff have been very successful recruiting new members for EDS by maintaining a membership desk at registration areas of conferences such as the '94 IEDM, '95 ISSCC, and '95 CCC. Current membership seems to have stabilized at between 10,500 and 11,000, with the usual influx and outflux of members. In the future, more students will be encouraged to join through a variety of recruitment approaches, and it is felt that the World Wide Web and the continued formation of new chapters worldwide will enhance the society's membership. There is now a large number of EDS chapters which are joint or one with more of the other IEEE societies (primarily with MTT and AP), a tendency that is felt to be very good in

IRW 95

(opened from page d)

open forum of discussion where everyone can participate and be heard by others.

The program at EDS has been successful in fostering collaborative work on important research topics, and continues to grow with an ever-increasing membership.

The schedule for the meeting, extending late into the evening, from Sunday afternoon through to the next day, was well organized. The attendees had the opportunity to visit other sites in the area and to experience the local culture.

The meeting was well attended, with over 100 attendees registered. The attendees included representatives from all over the world, including Europe, Asia, and the United States.

The meeting was successful in achieving its goals, and it is expected that the next meeting will be even more successful.

The Program: The Technical Program will include a number of presentations on a wide range of topics, including recent developments in the field of electronics.

The meeting was sponsored by the IEEE and was held in conjunction with the 1995 IEEE International Electron Devices Meeting.

The meeting was well attended, with over 100 attendees registered. The attendees included representatives from all over the world, including Europe, Asia, and the United States.

The meeting was successful in achieving its goals, and it is expected that the next meeting will be even more successful.
Regional and Chapter News

SE Michigan AP/MT/ED Chapter
— by Joseph W. Burns

The Southeastern Michigan AP/MT/ED Chapter sponsored a presentation by Dr. Michael Schinke of the University of Karlskrona, Sweden. The meeting was held on April 11 at the University of Michigan. Dr. Schinke's lecture, entitled "Transmission of Nonlinear Waves at a Lossy Semi-Infinite Medium," discussed a new analytic technique for computing in time domain the reflection and transmission of nonlinear sinusoidal plane waves which are normally incident on a planar interface between a perfect dielectric and a lossy semi-infinite medium. As anasts function for the electric and the magnetic fields in the far medium, transform solutions of a characteristic initial value problem for an unbounded medium are calculated with Riemen's method. These fundamental solutions can be seen as extension of d'Alembert solutions for a lossy medium. The special case of the reflected and transmitted waves for an impulsive incident field was considered. Due to the losses, the energy flux is not conserved in both media. The distribution in reflected and transmitted parts and the propagation of the impulsive-shape parts can easily be described.

Toronto CAS/ED/EO Chapter
— by John McMullen

On March 20, our Toronto chapter co-hosted a meeting with the Toronto Electromagnetics and Radiation Joint Chapter with a talk entitled, "GaAs Markets and Technolo- gies Directions: A review of current commer- cial GaAs IC applications and a discussion of future technology options," given by Dr. Paul Jay, Director of the Microwave Modules Group, Northern Telecom, Ottawa.

On June 1, Dr. Peter S. Guillet of OptiCom Corporation presented a talk entitled, "Digital Optical Computing," in which he described the demand for the present and future programs at OptiCom Corporation as well as the impact on hardware development.

On August 9, Dr. N. K. Dutta of AT&T Bell Laboratories gave a talk entitled, "Optical Interconnection Technology for Large Computing and Switching Systems."

Springfield ED/LEO/MT/AP/GRS
— by Mei-Lay Lu

The joint chapter of ED/LEO/MT/AP/GRS at Springfield, MA held two lec- tures by EDY distinguished lecturers in the prologue year. The first lecture was held on November 17, 1994 by John Lowell of Advanced Micro Devices, entitled, "Towards an Optical CIVL Progress in Optical Device Characterization." There were approximately 50 attendees, primarily industry and students at the University of Massachusetts - Amherst. The second lec- ture was given by the EDS President, Dr. David Johnston, Jr. of AT&T Labs, on February 7, 1995. The talk was on "State of the Art Semiconductor Laser Devices for High Bit Rate Long Haul Optical Communica- tions." The audience was about 50 people. All lectures were about relating problems relevant to optical manufacturing of semiconductor devices and circuits.

Upcoming EOS/EDS Symposium — by Michael T. Brandt


The Semiannual International Symposium deals primarily with the effects of electrical overstress (EOS) and electrostatic discharge (ESD) in semiconductors and components. Nearly 1,000 attendees from throughout the world are expected to attend this annual event, which is sponsored by the ESD Association and is technically co-sponsored by the IEEE Electron Devices Society.

Additional information on the EOS/EDS Symposium can be obtained by contacting the ESD Association, 7902 Turn Rd., Suite 4, Rocky River, OH 44112-2056; Tel. (216)339-6932; FAX: (216)339-6793.

— Paul K. L. Yu, Associate Editor

Report on 1995 Device Research Conference (DRC) — by Elias D. Towe

The 1995 Device Research Conference (DRC) was held in Portland, OR and provided a congenial forum for tech- nical exchanges for most EDS members in the Eastern and Southeastern United States. For the first time in its history, the DRC was

— Prof. Unash Mishra of the University of California at Santa Barbara. Prof. Mishra was also the 1995 DRC General Chair.

1995 Bipolar/BICMOS Circuits, and Technology Meeting (BCTM) — by John Lehning

For the first time beginning 1995, BCTM is offering a short course to be held the day before the conference. This year marks the 10th Anniversary of BCTM. To commemorate this occasion a joint special Paper Award consisting of a plaque and a check for US $500 will be presented to Mr. Hui-Hsiung Lai of the University of Wisconsin - Madison for his paper presented at the 1994 BCTM. The confer- ence will have 13 sessions with 46 papers, including invited papers, given in the following areas of bipolar interest: Process Technology, Power Devices, High Speed Analog Design, High Performance Analog Techniques, Advanced Models, Extraction Method for Advanced Models, Mixed Mode Circuit Design, Process Technology, and Digital Design. Two panel discussions are planned on the sub- jects of "Technologies for wireless commu- nication" and "Low-cost smartpower technologies." Kan Sodomski of AT&T Labs will be this year's keynote speaker and will deliver a talk on "The past and future of bipolar technology." Conference sponsored by the National Semiconductor Corporation will give the luncheon address. New to the BCTM for 1995 are the Power Device Sessions and a short course titled "Integrated Circuits Tech- nologies for Wireless and High Speed Components." Course instructors will lead sessions titled, "Overview of Opportunities of Bipolar IC's in Wireless and Optical Communication." (Dr. Robert Swartz), "Integrated Circuit Design for Wireless and High Speed Applications" (Toshi Iko, Koolcu), and "IC Processes for Technologies for Wireless and High Speed Communica- tion" (Dr. Hans Stork), The short course will be held on October 1, and the Conference will be held on October 2-23, 1995. For the first time, two separate sessions consisting of a total of 10 papers will be presented deal- ing with recent advances in power recti- fiers, RF, Millimeter, MCCI, high-speed and software ICs. For information, contact Jan Japke, CCS Associates, 6611 Country Drive, Eden Prairie, MN 55346; TEL: (612) 934-5082, FAX: (612) 934-6741; Email: japkew@spool.com

— Elias D. Towe, Associate Editor

Region 8

Switzerland CAS/ED Chapter
— by Jacques Kowalczyk

The upcoming 1995 chapter sponsored activities include:

• 6th of October 1995, Advanced Technologies (AT/ED), Intelligent Vision

• 6th-/7th November 1995, "How to use Multi-Project Wafer Service - the first day is more dedicated to the technical approach of MPW and the second day for technological representatives.

AT'95:
Since its original announcement, AT'95 has moved its date to 6th of October 1995. The subject of the manifestation will bring together specialists from various dis- ciplines covering the issues of intelligent sensing. The idea at this event, is also to provide a panel of application people showing how the innovation of smart see- ing ship has brought some economical impact on products and application. Invited speakers will be Dr. Peter Seitz, from Paul Schere Institute (Zurich) will give the kick-off talk specifying how the silicon sensors can be used to see- ing chip. Papers around analog signal pro- cessing for CCDs, digital signal processing and other related areas will be presented in components and applications will be presented. A special price policy has been applied for the overall event and encour- age membership of the IEEE.

Cooperatively Supported Events:
The CAS/ED Chapter has offered its cooper- ative sponsorship (no financial involve- ment) for IEE's symposium on "Dance Highways - Bern", to be held on 26th October 1995. The subject is of particular impor- tance for the overall event. For more information, please contact the Chair Professor Dr. P. Miknek or his secretary Dr. J. Kowalczyk at the Swiss Federal Institute of Technology, DE- LEC/CSI, 1015 Lausanne, Switzerland or E-mail: jkowalczyk@ecpl.depl.ch or jacques.kowalczyk@ds.pl.ch.

Yugoslavia ED Chapter
— by Nikolaos Stojadinovic

Currently, the main activity of the Yugoslavian ED Chapter has been applied to organizing the "20th International Conference on Microelectronics" (MIE95), for which the ED Chapter will be responsible. The Yugoslavian Journal 96 of the IEE's Newsletter will provide the earliest oppor- tunity to report on this event.

Chair Chair: Prof. Dr. N. Stojadini- novic, Faculty of Engineering, University of Nis, Beogradac 14, 18000 Nis, Serbia, Phone: +381 1855-682, Fax: +381 1846-180.

St. Petersburg MT/ED Chapter
— by Sergey Trutvyan

A new joint ED/MT Chapter was formed in St. Petersburg (approved on April 6, 1995). This is a result of the joint initiative of the MT and ED Societies for awards, the former St. Peters- berg Society for promoting the formation of MTS-ED Chapters in the former Soviet Union and especially in Eastern European area.

The first events were:
• Invited lecture of Professor B. Diamant, Director of the DoD Society (May 26, 1995). The lecture topic was "Voltage tunable diode lasers in making microwave phase shifters, voltage tunable
oscillators and phase-locked loops". This lecture took place at the St. Petersburg Electrotechnical University and was arranged here by Professor O. Vendik of that University. • Former Soviet Union / Eastern Europe Chapter Meeting. The meeting was held during the 1995 International Conference on Electromagnetic Theory on May 23. The meeting was cochaired by Arik Shiloach, Finland and Sergei Tret’yakov (ED/MIT St. Petersburg Chapter chair). Twenty representatives from Russia, the Ukraine, Belarus, and other former Soviet countries participated. In the meeting, the present state and the problems in formation of new IEEE chapters in the area were discussed. At present, no more chapter in Russia is under development: the Moscow chapter. Three representatives of the Moscow community were present: Y. Shostakov (Moscow University), A. Vinogradov (Scientific Center of Applied Electrodynamics), V. Kaloshin (Academy of Sciences). In the Ukraine (represented by V. Vereyken, Academy of Sciences), two chapters are active since very recently: in Kiev (Western Ukraine) and Kharkov (East Ukraine). Problems of fast communications, access to the World Wide Web, and participation in international meetings and symposia sponsored by the IEEE were also discussed. The Moscow IEEE Section and Project Clays from IMEC, Leuven, Belgium. The topics of interest for the workshop are: device physics and fundamental aspects, new materials and novel technologies, characterization and modeling, device and circuit design, bolometer sensors and detectors; and applications. The Belenos EDS Chapter is also technology supporting the organization of the 3rd International Symposium on Ultra- Clean Processing of Silicon Surfaces to be held in September 1995 in Belgium. Being a rather new chapter the Belenos EDS Chapter is on its way in building new and different activities from St Petersburg Chapter Chair: Dr. Sergei Tret’yakov, St. Petersburg Technical University, 28, Ul. Kotel’nikovskaya 28, St. Petersburg, Russia, TEL: (7) 812-552-76-85; FAX: (7) 812-552-60-86; E-mail gaykov@yolkud.bitnet.

Belenos EDS Chapter — by Leanne Wilson The Belenos EDS Chapter is one of the new Chapters in Region 8. The Chapter was officially founded on March 22, 1995. The first activity will be on September 8th, 1995. Dr. Howard Huffman from Sematech will give a talk on "Soldering and Metrology: Critical Concepts for Optimal IC Performance in the Gigabit Era." On the same day the newly elected IEEE Fellows from the Belenos Chapter will officially be honored.

25-27, the 15th European Solid State Device Research Conference (ESSDERC ’95) will take place in The Hague, Netherlands. Although the conference program is still under development, the 1995 EDS Region 8 Chapters Meeting will be organized on Sept. 24th in The Hague. The EDS Belenos Chapter is also supporting the "NOMAD Microwave Technologies and Techniques for Mobile Communications and Detection" International Conference on November 16-18, 1995 in Palais de Congress in Aracchon, Gironda, France. This meeting is an initiative of the IEEE-MET & EDS France chapter.

The EDS Benelux Chapter, together with the EDS Benelux Chapter will also organize in June 1996 the 2nd European Workshop on Laser Processing of Materials (WOLP-2) in Leuven, Belgium. The objective of the workshop is to provide an international forum for discussing the latest research and development achievements in the area of low temperature and high temperature superconductivity. The meeting has technical co-sponsorship from the European Electron Devices Society and the Workshop Organisers: Prof. A. Clays from IMEC, Leuven, Belgium. The topics of interest for the workshop are: device physics and fundamental aspects, new materials and novel technologies, characterization and modeling, device and circuit design, bolometer sensors and detectors; and applications. The Benelux EDS Chapter is also technology supporting the organization of the 3rd International Symposium on Ultra-Clean Processing of Silicon Surfaces to be held in September 1995 in Belgium. Being a rather new chapter the Belenos EDS Chapter is on its way in building new and different activities from The Australian IEEE EDS Chapter - by Ching-yu Tsai The Australian Chapter of EDS & ELDOS is planning to have a joint membership of about 200 belonging to seven IEEE sections spread all over Australia. We have a number of activities jointly with other groups, including the 1993 and 1994 Australian Universities’ LASER Conferences, Materials, and a number of workshops on optical networks and photonics devices. We have also organized the 1995 EDS and EDS Distinguished Lecturers, including Prof. Dieter Schröer who gave two semi-nars on "Characterization of Passive Components," and Prof. Chris Conway who gave seminars on "Vertical Cavity Surface Emitting Laser Arrays." In addition, other visits were also received from Prof. Jim Coleman (Illinois), Prof. Cary Yang (Santa Clara), Prof. Kunio Tada (Tokyo), Prof. Lawrie Challs (Nottingham), and Prof. Peter Broida (Wales of Cardi). Our joint workshop won the "1994 Most Innovative EDS Chapter" award. We are planning number of future activities. These will include the screening of a video course on "Silicon on Insulator", and the local VLSI industry is keen to build $13 million to build new fab facilities in 95/96, as well as around the world.

This year's Technical Program consisted of 42 contributions from the USA, Canada, Japan, and 11 countries. The paper acceptance ratio was about 50%. In addition there were also ten invited papers. This year the following Chairmen of the Chapter are: Prof. Willem Perle from the University of Dusseldorf, South Africa, and Prof. W. W. Wilcockson from the University of Pretoria in South Africa.

For further information, please contact Prof. Ching-yu Tsai, Department of Electrical & Electronic Engineering, University of Pretoria, 0028 South Africa, TEL: 021-340-990; FAX: 021-4022164; FAX: 27-12-433254. Email: Leanne.Wilson@ee.es. ac.uk.

ED-Asia Pacific Associate Editor — Terry H. Oxley, Associate Editor Region 10 SISPAD'96 — by Akira Yoshii In the July issue, there was an announcement that "SISPAD'96 will be held in Kawasaki, Japan. The location of the conference has recently been changed to one near Kanagawa." More information please contact the call for papers in the Trans. on Electron Devices or contact Dr. A. Yoshii, TEL: +81-466-40-4306, Email: ayoshii@ehc.or.jp.

Report of the 1995 International Symposium on Silicon Technology, Systems, and Applications (VLSI-TSA '95) — by Ching-yu Tsai The 1995 International Symposium on VLSI Technology, Systems, and Applications, jointly sponsored by Industrial Technology Research Institute (ITRI) and the National Science Council, was held from May 21 - 23, 1995 in Taichung, Taiwan. This marks the 12th anniversary of the Symposium. EDS provides cooperation support for the VLSITA. The Symposium continues to be a success and provides a major forum for the researchers and engineers to exchange new ideas and to further enhance the state of art in VLSI. The number of attendees this year increased to roughly six hundred, including government dignitaries and a large number of local microelectronics industry leaders, researchers and engineers. This year’s symposium reflects the phenomenal advancement in VLSI in Taiwan. (The local VLSI industry is keen to build $13 million to build new fab facilities in 95/96, as well as around the world.)

This work was supported by IEEE MTS-USA and the IEEE Transnational Committee, Research. The financial support was provided by ELDOS. Fifteen experts were invited to deliver lectures at the workshop. As part of the workshop, an IEEE membership booth was arranged and we managed to recruit 30 new members.

For further information, please contact Prof. S.K. Koul, Chapter Chair, TEL: +91-11-686-3165; FAX: +91-11-686-2037; E-mail: s.k.koul@ieee.org

ED Malaysia Chapter — by Lai Hock Keong The IEEE Malaysia Section is organizing an International Conference on Semiconductor Electronics, to take place on October 22 24 in Penang. The conference scope ranges from basic semiconductor materials and technologies to microprocessors and microchips, as well as applications of microelectronics products. For further information, please contact Chair, TEL: 603-829-2928; FAX: 603-825-9080; E-mail: husband@eng.ukm.my.
### IEEE Electron Devices Society Meetings Calendar

<table>
<thead>
<tr>
<th>Date</th>
<th>Name/Location</th>
<th>Contact/Abstract Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 24</td>
<td>1995 IEEE International Conference on Computer Design/VLSI in Computers and Processors</td>
<td>(For Sessions Hosts, Austin, TX)</td>
</tr>
<tr>
<td>Oct. 6</td>
<td>1995 IEEE International Conference on Advanced Technologies/Scientific Park (Y Pad), Yandern, Switzerland</td>
<td></td>
</tr>
<tr>
<td>Nov. 11-14</td>
<td>1995 International Semiconductor Conference/Samsung Hotel</td>
<td></td>
</tr>
<tr>
<td>Nov. 15-18</td>
<td>1995 International Conference on VLSI and CAD/The Swiss Grand Hotel, Seoul, Korea</td>
<td></td>
</tr>
<tr>
<td>Nov. 22-25</td>
<td>1995 IEEE International Integrated Reliability Workshop/Stanford Sierra Camp, South Lake Tahoe, CA</td>
<td></td>
</tr>
<tr>
<td>Nov. 23-27</td>
<td>1995 European Photovoltaic Solar Energy Conference and Exhibition/Accords Convention Center, Nice, France</td>
<td></td>
</tr>
<tr>
<td>Dec. 24-28</td>
<td>1995 International Conference on Solid-State and Integrated-Circuit Technology/Beijing International Convention Centre, Beijing, China</td>
<td></td>
</tr>
<tr>
<td>Dec. 29</td>
<td>1995 Gallium Arsenide Reliability Workshop/Sheraton Harbor Island Resort, San Diego, CA</td>
<td></td>
</tr>
<tr>
<td>Nov. 6-8</td>
<td>1995 IEEE/GMSE Integrated Circuits Symposium/Novotel, Paris, France</td>
<td></td>
</tr>
<tr>
<td>Nov. 10-12</td>
<td>1995 IEEE/SME Advanced Semiconductor Manufacturing Conference and Workshop/Hyatt Regency Hotel, Cambridge, MA</td>
<td></td>
</tr>
<tr>
<td>Nov. 16-18</td>
<td>1995 IEEE International Topical Meeting on Nanomicroelectronic Technologies and Techniques for Mobile Communications and Detection/Palais Des Congres, Aix-en-Provence, France</td>
<td></td>
</tr>
<tr>
<td>Dec. 7-12</td>
<td>1995 Workshop on High Performance Electron Devices for Microwave and Optoelectronic Applications/King's College, Strand, London, UK</td>
<td></td>
</tr>
<tr>
<td>Dec. 6-9</td>
<td>1995 IEEE Semiconductor Interface Specialists Conference/China Hotel, Hong Kong</td>
<td></td>
</tr>
</tbody>
</table>

### IEEE Electron Devices Society Meetings Calendar (As of August 15, 1995)

<table>
<thead>
<tr>
<th>Date</th>
<th>Name/Location</th>
<th>Contact/Abstract Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 5-7</td>
<td>1996 IEEE Multi-Chip Module Conference/Foreign Office and Conference Center, Santa Cruz, CA</td>
<td></td>
</tr>
<tr>
<td>Feb. 8-10</td>
<td>1996 International Solid-State Circuits Conference/San Francisco Marriott, San Francisco, CA</td>
<td></td>
</tr>
<tr>
<td>March 18-21</td>
<td>1996 National Radio Science Conference/The Military Technical College, Cairo, Egypt</td>
<td></td>
</tr>
<tr>
<td>March 26-28</td>
<td>1996 IEEE International Conference on Microelectronic Test Structures/Grand Hotel Trento, Trento, Italy</td>
<td></td>
</tr>
<tr>
<td>April 21-25</td>
<td>1996 IEEE International Conference on Indium Phosphide and Related Materials/Conference Center &quot;Stadtrad,&quot; Schwabach, Germany</td>
<td></td>
</tr>
<tr>
<td>Apr. 29-30</td>
<td>1996 IEEE International Reliability Physics Symposium/Hotel, Aix-en-Provence, France</td>
<td></td>
</tr>
<tr>
<td>Apr. 29-30</td>
<td>1996 International Reliability and Insulating Materials Conference/Hotel, Aix-en-Provence, France</td>
<td></td>
</tr>
<tr>
<td>May 13-14</td>
<td>1996 IEEE International Symposium on Plasma Process Induced Damage/San Jose, CA</td>
<td></td>
</tr>
<tr>
<td>May 13-17</td>
<td>1996 IEEE Photovoltaic Specialists Conference/Hyatt Regency Crystal City, Crystal City, VA</td>
<td></td>
</tr>
<tr>
<td>May 28-31</td>
<td>1996 International Symposium on Electron, Ion and Photon Beam/Department of Physics, University of California, Berkeley, CA</td>
<td></td>
</tr>
<tr>
<td>June 9-10</td>
<td>1996 IEEE Silicon Nanoelectronics Workshop/Hilton Hawaiian Village Hotel, Honolulu, HI</td>
<td></td>
</tr>
<tr>
<td>June 11-13</td>
<td>1996 Symposium on VLSI Technology/Hilton Hawaiian Village Hotel, Honolulu, HI</td>
<td></td>
</tr>
<tr>
<td>June 17-18</td>
<td>1996 Microwave and Millimeter-Wave Monolithic Circuits Symposium/Microsoft Convention Center, San Francisco, CA</td>
<td></td>
</tr>
<tr>
<td>June 17-19</td>
<td>1996 IEEE Device Research Conference/University of California, Santa Barbara, CA</td>
<td></td>
</tr>
<tr>
<td>June 17-21</td>
<td>1996 International Conference on Ion Implantation Technology/Stanford Hotel, Austin, TX</td>
<td></td>
</tr>
<tr>
<td>June 24-27</td>
<td>1996 Silicon Monolithic Symposium/The Boca Raton Resort &amp; Club, Boca Raton, FL</td>
<td></td>
</tr>
<tr>
<td>June 26-28</td>
<td>1996 European Workshop on Low Temperature Electronics/MEC, Louvain, Belgium</td>
<td></td>
</tr>
<tr>
<td>June 29</td>
<td>1996 Hong Kong Electron Devices Meetings/Hong Kong The Hong Kong Polytechnic University, Hong Kong</td>
<td></td>
</tr>
</tbody>
</table>

### Contact - Abstract Deadline

- Phyllis Mahoney: Deadline Post Date
  - Tel: (301) 527-0000 Fax: (301) 527-0094
- M.I. Elwany: Deadline: Post Date
  - Tel: (519) 888-4576 Fax: (519) 746-1195
- Gita Bora: Deadline Not Applicable
  - Tel: (904) 392-6067 Fax: (904) 392-8601
- David Tackerman: Deadline: Post Date
  - Tel: (408) 459-9992 Fax: (408) 459-0151
- Diane A. Sutin: Deadline: Post Date
  - Tel: (202) 399-6253 Fax: (202) 346-1607
- Brian A. Solomon: Deadline: Post Date
  - Tel: (202) 258-0256 Fax: (202) 349-8217
- Middendorf Bassett: Deadline: Post Date
  - Tel: (394) 613-1444 Fax: (394) 613-3199
- Volker Schanz: Deadline: Post Date
  - Tel: (49-494-6380-336 Fax: (49-494-6321-925
- Roy Walker: Deadline: 9/22/95
  - Tel: (315) 399-3971 Fax: (315) 366-4194
- Sumit Joaisne: Deadline: 12/15/95
  - Tel: (503) 262-7600 Fax: (503) 262-7699
- Melissa Widerste: Deadline: 12/9/95
  - Tel: (202) 577-0692 Fax: (202) 577-6994
- Charles K.P. Cheung: Deadline: 1/15/96
  - Tel: (908) 582-6483 Fax: (908) 582-5980
- Eldon C. Bass: Deadline: 11/27/95
  - Tel: (202) 651-7500 Fax: (202) 651-7502
- M. Ayman Shibli: Deadline: 10/6/95
  - Tel: (610) 939-4676 Fax: (610) 939-4679
- Donald Tarran: Deadline: 1/15/96
  - Tel: (503) 284-5007 Fax: (503) 400-8998
  - Tel: (214) 995-2366 Fax: (214) 995-1916
- Mahesh Kumar: Deadline: 12/1/95
  - Tel: (516) 574-5395 Fax: (516) 524-2032
- Peter A. Rudolphi: Deadline: Not Applicable
  - Tel: (519) 354-6712 Fax: (519) 354-6506
- Larry A. Lorson: Deadline: 1/21/96
  - Tel: (512) 356-7145 Fax: (512) 356-3083
- Janice D. Brocks: Deadline: Not Applicable
  - Tel: (703) 413-1282 Fax: (703) 413-1315
- C.L. Clays: Deadline: 12/15/95
  - Tel: (502) 218-328 Fax: 0214-281214
  - Tel: (852) 2859-2691 Fax: (852) 2559-8738
CALL FOR NOMINATIONS - EDS AdCom

The Electron Devices Society invites the submission of nominations for election to its Administrative Committee (AdCom). Presently, the AdCom meets twice per year and is composed of 21 members. Seven members will be elected this year for terms of three years, and a maximum of two consecutive terms is allowed. In 1995, the election will be held after the AdCom meeting on Sunday, December 10th. Electees begin their term in office on January 1, 1996.

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. As another condition for nomination and election, a nominee must be willing to attend the two annual AdCom meetings.

Please send name, address, and supporting information for a nominee to the IEEE EDS Nominations and Elections Committee Chair in time to be received by the deadline of October 27, 1995. 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

EDS Administrative Committee Election Process

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 mandated increasing the number of elected MALs from 18 to 22, and required that there be at least two members from IEEE Regions 8 (Europe, Mid. East & Africa) and 10 (Asia & Pacific). It also required that there be at least 1.5 candidates for each opening. In 1993 and 1994, eight and seven positions were filled, respectively. In 1995 another seven positions will be filled and then the three-year cycle will start over.

The election procedure now begins with the announcement and Call For Nominations in this Newsletter, *IEEE Electron Device Letters*, and *IEEE Circuits and Devices Magazine*. The slate of nominees is developed by the EDS Nominations Committee and includes the non-Committee and self-nominations received. 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 'full' 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 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.

---

New ALL ELECTRONIC Journal of Technology Computer Aided Design

The Electron Devices Society is starting a new journal covering modeling and simulation of semiconductor devices, materials, processes, and process equipment (Technology CAD or TCAD). This Journal will be published electronically on the World-Wide Web (WWW) in cooperation with Stanford University. Publication on the WWW provides the capability for both color and movies to be included in the articles. Progress in the start-up of this new Journal can be followed through the EDS Home Page. The WWW address or URL (Uniform Resource Locator) for the EDS Home Page is: 'http://www.ece.neu.edu/eds/EDS home.html'). In its initial phase, the Journal will be free to all with access to the WWW.

— Frederick H. Dill
IBM Research Center
Yorktown Heights, NY 10598

IEEE Election! Did You Vote Yet?

This is a reminder for EDS members to vote in the 1995 IEEE Election for IEEE President (Charles K. Alexander, Joseph Bordogna or Jan Brown) and Division I Director (Michael S. Adler or Philip V. Lopresti) as well as your respective Regional Directors. The deadline for the submission of your ballot is November 1, 1995.