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Editor: Krishna Shenai

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Contributions Welcome

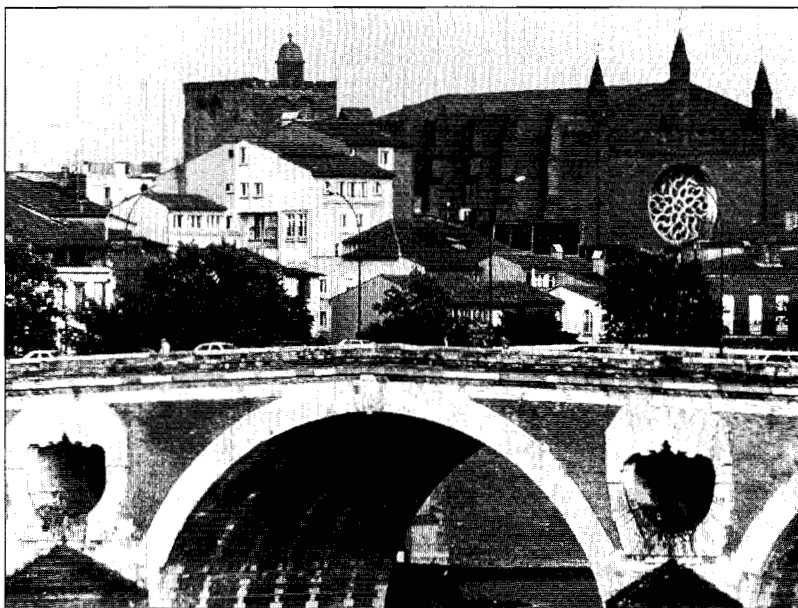
Readers are encouraged to submit news items concerning the Society and its members. Please send your ideas/articles directly to either the Editor or appropriate Associate Editor. All contact information is listed on the back cover page. Whenever possible, e-mail is the preferred form of submittal.

Newsletter Deadlines

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

IEEE Electron Devices Society Newsletter

1996 IEEE Semiconducting and Semi-Insulating Materials Conference (SIMC9)



The 9th IEEE Semiconducting and Semi-Insulating Materials Conference (SIMC9) will be held April 29-May 3, 1996 at the Atria-Mercure Hotel Center in Toulouse, France. The Atria is located in the center of the town within easy walking distance from many historical sites such as the Capitol, Saint Sernin basilic and the Jacobin church.

Half-way between Portugal and Germany, between the Atlantic Ocean and the Mediterranean Sea, capital of Midi-Pyrénées region, Toulouse plays an important role in France and abroad. Internationally acknowledged as a leader in technology, Toulouse has retained all the richness of its past; visitors appreciate its picturesque streets, public buildings, lively terrace cafés, a stroll along the banks of the Garonne river... A town teeming with history, life and culture. Toulouse is already in step with the 21st century: advanced aeronautics with Concorde and Airbus, European centre for the aerospace industry with the development of the Ariane launcher and satellites, scientific universities, "grandes écoles", research laboratories... Toulouse has become a city for top scientists. City of the "Capitouls", embellished by the Renaissance Arts, Toulouse has always been at the forefront of French life and thought. Its rich,

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Your Comments Solicited

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

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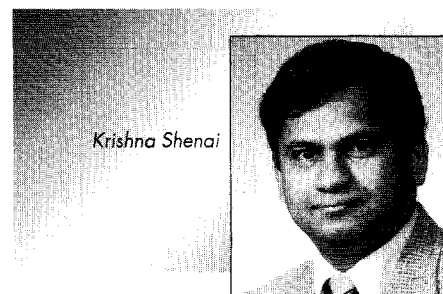
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A Message from the Editor



Krishna Shenai

Since its introduction in 1994, the EDS Newsletter has served very well one of its prime objectives of reaching out to our members all around the world. The Newsletter Oversight Committee, headed by James L. Merz of the EDS AdCom, has decided to expand the coverage of chapters and local news from four to seven pages beginning this issue. As a result, we have appointed five new Associate Editors to the Newsletter editorial board to expand the regional coverage. I am very pleased to introduce the new members below. I welcome them to the editorial board and look forward to working with them.

Robert Adde received the doctorat-es-sciences from Université Paris-Sud, Orsay, France, in 1966. After one year spent at Bell Telephone Laboratories, Murray Hill, NJ, he headed a research group at Institut d'Electronique Fondamentale, Orsay. His activities have been in spectroscopy of solids, then superconducting electronics. Since 1984 he has turned to III-V semiconductor devices with special emphasis on experimental investigations and modeling in high electric field regimes. Dr. Adde is Research Director at CNRS. He was in charge of CNRS Research activities in Electronics and Optics at the Direction of Engineering Sciences between 1985 and 1991.

Savvas G. Chamberlain obtained his first degree at Northern Polytechnic in London, U.K. and the M.Sc. and Ph.D. (1968) degrees from Southampton University, U.K. In 1990 he was elected Fellow of the IEEE. As a Professor at the University of Waterloo, Waterloo, Ontario in the 1970's and 1980's, he carried out extensive research on MOSFET devices and CCD image sensor technology. In the late 1980's he successfully transferred his technology to DALSA Inc., CCD Image Sensors, a company which he founded and capitalized in November 1984. He published in refereed scientific journals and professional conferences more than 150 papers. Also, he is the author or co-author of a number of patents in the CCD image sensor area. He is one of the founding members of the IEEE Custom Integrated Circuits Conference. At various times he served as a guest editor of special issues of the *IEEE Transactions on Electron Devices* and *IEEE Journal of Solid-State Circuits*.

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EDS ADCOM MEMBERS-AT-LARGE

Term Expires:

<u>1995</u>	<u>1996</u>	<u>*1997</u>
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C.Y. Yang	I. Mojzes	R.J. Temkin
	T.H. Ning	S. Verdonck-Vandebroek
	R.J. Van Overstraeten	

* Members elected 12/94

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Upcoming Technical Meetings

SIMC9

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tumultuous past has left a great architectural heritage.

The SIMC is a series of biennial conferences initiated in 1980 in Nottingham (UK). SIMC7 was held in Mexico, SIMC8 in Poland and the latter attracted more than 125 delegates from 23 countries. This year it will be held in France and this is good news for those also being receptive to "regional cuisine" and outstanding wines! Previously named the "Semi-Insulating III-V Materials Conference", the title of the conference was changed last year by the IEEE advisory committee in order to open this conference to all the compound semiconducting materials, which are involved in the prospective electronic and photonic devices of nowadays. Clearly, SIMC-9 will bring together specialists from various fields of materials science, solid state physics, device and process engineering. The purpose of this meeting is to discuss growth, characterization, theory, device applications, and materials issues of the III-V semiconductors, which can be rendered insulating by special elaboration procedures or by post-growth treatments, but also of other promising compound materials such as SiGe, GaN, SiC, Participants of the conference will have an opportunity to exchange ideas and to discuss future directions of development of this expanding field. During the conference an exhibition of equipment, materials and services of interest to the materials community will be held in a room adjacent to the amphitheater with coffee at your disposition. The program of the conference will include invited, oral and poster presentations. Proceedings including all accepted contributions will appear as a separate hard-cover book. The book will be sent to the participants of the conference.

Topics to be Emphasized:

Growth — Bulk and epitaxial growth of materials; post-growth treatments; low temperature III-V molecular beam epitaxy (MBE); technology of wide gap materials such as nitrides and of SiGe, SiC, ...; defect control in high purity compounds, and in irradiated materials.

Characterization — Electrical and optical evaluation; deep level analysis;

point and extended defect structure; mapping and uniformity of materials; interface investigations.

Theory — Heat and mass transport in technological processes; surface and interface states; identification of defects and impurities, compensation processes.

Applications — Electronic and optoelectronic devices integrating these materials; the role of point and extended defect; reliability and processing issues.

Abstract submission:

Prospective authors are invited to submit one original and five copies of a one-page abstract. Facsimile copies of abstracts will not be accepted. Abstract must be camera-ready and typed on a A4 (8 1/2" x 11") white paper, with left and right margins of 2 cm. The upper and lower margin should be 2.5 cm and the abstract must include the header containing the title, author's name, affiliation, address and the telephone number, facsimile number and

e-mail address. Remember, **the abstract deadline is January 15, 1996.**

Other important dates:

Notification	February 15, 1996
of Acceptance	
Early registration	March 15, 1996

A social program is planned for participants and accompanying persons. It will include an evening reception party and a visit to Albi, Cordes and other interesting sites.

For more information and/or to be registered, please contact Josiane SUTRA, IEEE-SIMC9 CEMES/CNRS, BP 4347, 31055 Toulouse Cedex France, via FAX : 33 62 25 79 99, or E-mail: simc-9@cemes.cemes.fr

So be sure to register and join the action. See you in April !

— Alain Claverie
General Chairman SIMC-9
CNRS Toulouse

1996 IEEE Multi-Chip Module Conference (MCMC)



The IEEE Multi-Chip Module Conference (MCMC) will be held February 5 - 7, 1996 in Santa Cruz, CA. This multi-disciplinary conference, co-sponsored by four IEEE Societies (Computer, Circuits and Systems, Electron Devices, and Components, Packaging and Manufacturing Technology), covers a wide range of topics in state-of-the-art multichip module

(MCM) analysis, design, technology, and applications. This goal of the conference is to bring together elements of packaging technology and design, circuits and systems design, computer-aided design, modeling, analysis and education. The conference is unique in its multi-disciplinary coverage of all aspects of MCMs,
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MCMC

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and it has historically drawn a highly diverse group of attendees from industry, academia, and government.

This year's MCMC conference is scheduled to conclude immediately prior to the start of the IEEE International Solid State Circuits Conference (ISSCC) technical sessions, which begin on February 8 in nearby San Francisco. Thus, it is possible to attend both conferences in a single one-week visit to the "Silicon Valley" area.

As in past years, this year's meeting will be held at the elegant and historic Cocoanut Grove, located on the scenic Santa Cruz beach boardwalk (see photo). Santa Cruz is a beautiful coastal town with many activities available to visitors. You can, for example, deep sea fish, play tennis, skin dive, surf, or play golf at internationally known courses. The Santa Cruz Beach Boardwalk is the only remaining seaside amusement park in California, open most weekends and holidays year round. Admission is free.

The first day of the conference (Monday) is devoted to three tutorials on topics of current interest. Larry Gilg of the Microelectronics and Computer Corporation (MCC) will give a tutorial on **"Known Good Die"** technology. Robert Crowley and Tom Goodman of Techsearch International will talk on **"Chip-Scale Packaging"** development. Peter Ivey and Jon Stern of the University of Sheffield (United Kingdom) will present a tutorial on **3-dimensional MCMs ("MCM-V")**.

The technical program, containing over 30 carefully selected papers, will be held on Tuesday and Wednesday. The keynote speaker, Bill Baker of Wireless Access, will open the meeting with a presentation on **"The Role of MCMs in Wireless Systems"**. This will be followed by technical sessions on:

- **New MCM Applications**
- **Bare Die Availability Issues**
- **Flip-chip MCMs**
- **Mixed-Signal MCMs.**

The day will culminate with a **Poster Session** and then a **Banquet** (the Cocoanut Grove is noted for its gourmet cuisine). The final day of the conference (Wednesday) will include sessions on:

- **Electrical Design**
- **Design Optimization**
- **Computer-Aided Design**
- **Advances in MCM Technology**
- **Modeling of Interconnect.**

1996 International Conference on Microelectronic Test Structures (ICMTS)



The International Conference on Microelectronic Test Structures (ICMTS) will be held March 26-28, 1996 in Trento, Italy, at the Centro Congressi Tridentino c/o the Grand Hotel Trento. The Conference is sponsored by the IEEE Electron Devices Society in cooperation with the local University and I.T.C., the Istituto Trentino di Cultura, and brings together designers and users of test structures from all over the world to discuss recent developments and future directions. The Conference covers a broad spectrum of test structures related activities from process and materials characterization right through to production monitoring and data analysis. Technical (both oral and poster) Sessions addressing issues such as reliability, device parameters extraction, dimensional measurements, capacitance measurements, process induced defects and yield are planned. The focus will continue to be on advanced ICs on Si and III-V semiconductors, but also emerging new technologies and devices including physical/chemical sensors and micromachined

devices will be covered. Preceding the Conference on March 25, a full day tutorial provides educational sessions presented by leading lecturers from major industries or universities with acknowledged experience in the field. The tutorial is intended to provide the non-expert with a critical overview on the fundamentals associated with the efficient design and use of microelectronic test structures. A small but highly qualified equipment exhibition is planned in conjunction with the Conference. This complements the technical program giving the attendees an opportunity to see the operation of both hardware and software which is related to the subject matter covered by the Conference. Along with the technical program, social events are planned to help expand on the personal friendship that has been the trademark of the Conference.

Situated on the river Adige and surrounded by majestic mountains in the alpine region near the Austrian border, the town of Trento lies between several valleys

During the conference, there will also be exhibits and demonstrations of state-of-the-art MCM prototypes and products from leading industrial organizations and MCM CAD tools from universities and CAD vendors.

Registration materials for MCMC'96 may be obtained from Lisa Pascal, Dept. of Computer Engineering, University of Cali-

fornia, Santa Cruz, CA 95064: TEL: 408-459-2263, FAX: 408-459-4829, E-mail: lisa@cse.ucsc.edu. Additional information can also be obtained through the World Wide Web, at <http://www.cse.ucsc.edu/~lisa/mcm/mcmc.html>.

— David Tuckerman
NCHIP
San Jose, CA 95132

at the point where the roads from lake Garda, Verona and Venice cross those to the nearby Dolomites and the Brenner pass. The Centro Congressi Tridentino which hosts the ICMTS'96 Conference is located in the City Center of Trento a short walking distance from the Railway Station and the medieval area, where churches and other historical monuments are to be found together with elegant shops and traditional restaurants. Thus, participants will have opportunities to getting out and about

on relaxing walks through winding streets and beautiful piazzas.

For further information please contact: ICMTS'96 Secretariat, c/o IRST-Microsensors and System Integration Division, Povo, 38100 Trento (Italy); TEL: 39 461 314548; FAX: 39 461 314591; E-mail: bassetti@irst.itc.it

— Giovanni Soncini
Istituto Per La Ricerca Scientifica e
Tecnologica
Trento, Italy

Eighth International Conference on Indium Phosphide and Related Materials (IPRM '96)



The Eighth International Conference on Indium Phosphide and Related Materials (IPRM '96) will be held at the Convention Center "Stadtgarten", Schwäbisch-Gmünd, Germany, April 21-25, 1996. Schwäbisch-Gmünd is a small old town founded more than 1200 years ago and developed by the Staufers, the emperors in Central Europe in the middle ages. Located between hills dotted with woods and vineyards it is a most charming town with its old churches, public buildings, town walls and towers, its private "Fachwerk" houses and its friendly inhabitants. To the south you will find the mountain rim of the Swabian Alb with its petrified fossils. Sixty kilometers to the west is the Swabian metropole Stuttgart with its old and new castles and museums, as well as Ludwigsburg with its baroque castle and gardens.

Since the International Conference on Indium Phosphide and Related Materials was established in 1989 its steadily increasing importance has been demonstrated by the growing international attendance, and by the submission of numerous qualified papers ranging from basic research to production aspects. Last year's conference, the IPRM '95, was held in Hokkaido, Japan, and had about 230 submitted technical papers and 350 attendees from all over the world.

The technical program of the forthcoming IPRM '96 includes high level plenary and invited talks, contributed papers, and poster presentations covering the following topics:

Optoelectronics: Advances in lasers, detectors, optical modulators and amplifiers, waveguide based devices, quantum

structures, optoelectronic and photonic integrated circuits. New devices for optical switching, networking and signal processing. Solar cells.

Electron Devices: Transistors such as HFETs/HEMTs, JFETs, HBTs. Millimeter wave and microwave circuits. Pseudomorphic and lattice matched devices. Low noise and power characteristics. Quantum effect and mesoscopic devices.

Processing: New Schottky and ohmic contacts. Low damage dielectric deposition. Passivation and reliability issues. Selective, wet and dry etching. New processing techniques for advanced compound semiconductor materials.

Epitaxy: MOVPE, MBE, MOMBE/CBE, ALE and related techniques. Growth of quantum structures and lattice mismatched materials. Selective and self-organizing epitaxy and growth on structured substrates.

Bulk and Semiinsulating Materials: Advances in crystal growth technology, including semiinsulating substrates. Methods for in-situ and post growth defect and doping control. Wafer thermal stability and characteristics.

Characterization and Control: Novel methods and new results on the characterization of materials (bulk and epi) and devices, in-situ control of growing layers and of processing steps with emphasis on quality control and reproducibility.

Prior to the conference, on Sunday, April 21, a series of three ninety-minute minicourses will be held by high level internationally recognized experts on the following topics:

- From Quantum Wells to Quantum Dots - Epitaxial Growth and Physics of Low-Dimensional Structures
- InP-based Heterostructure FETs: Design, Manufacture, Performance and Applications
- The Role of InP Components for Optical Switching and Routing Systems.

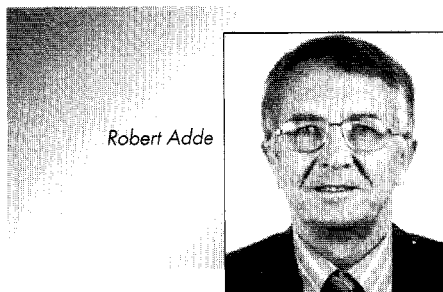
The technical sessions of IPRM '96 will be accompanied by an attractive social program. On Sunday afternoon there will be a get-together party to welcome the IPRM '96 attendees at the Convention Center "Stadtgarten". On Monday evening a short tour through the historic town of Schwäbisch-Gmünd will take us to the old church (with an organ recital) and to the cultural centre "Prediger", with a reception by the mayor. A special rump session will be held on Tuesday evening, April 23, which is open to all IPRM '96 participants. Wednesday afternoon will be held free for
(continued on page 6)

From the Editor

(continued from page 2)

Mikael Ostling was born 1955 in Sundsvall, Sweden. He received the MSc. degree in engineering physics in 1980 and the doctor of technology degree in electronics in 1983, both from Uppsala University. In 1984, he joined the faculty at the school of Electrical Engineering, Royal Inst. Technology, Stockholm, Sweden, where he holds a position as associate professor in solid state electronics. In 1987 he was appointed the degree docent. During 1993/94 he was a senior Fulbright visiting Scholar at the Center for Integrated Systems (CIS), Stanford University, USA. His field of research is electronic devices, VLSI processing and materials analysis. He is also conducting research towards processes and devices in silicon carbide. His research production comprises more than 120 scientific papers and 2 book chapters. He is the editor of two conference proceedings. He is a member of the AVS, IEEE, MRS and ECS and the Swedish Vacuum Society.

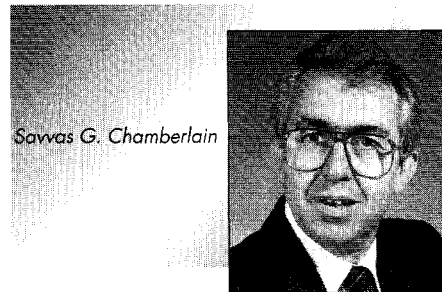
M. Ayman Shibib received a Ph.D. in Electrical Engineering in 1979 from the University of Florida, and was an Adjunct Assistant Professor there from 1979 to 1980. In 1980, he joined AT&T Bell Laboratories in Reading, PA as a member of technical staff. He worked on the development and introduction to manufacture of the first 600 volt IC used in AT&T's #5ESS™. In 1987, he was awarded the Distinguished Technical Staff award and several individual contribution and



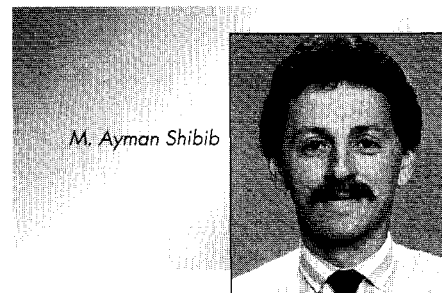
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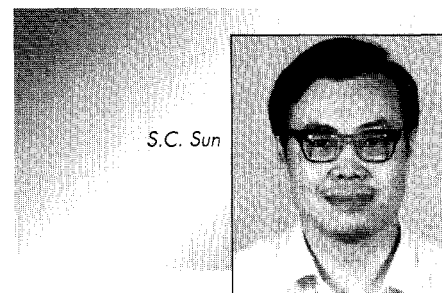
Mikael Ostling



Savvas G. Chamberlain



M. Ayman Shibib



S.C. Sun

achievement awards. He also worked on the development of four generations of smart power BiCMOS technologies, the most recent of which achieved 50% cost reduction over its predecessor. He has authored more than 30 technical articles and holds 5 U.S. patents and has several others pending. He chaired several IEEE sponsored conferences at the international and regional levels, was a guest editor of the *Transactions on Electron Devices* (1991), and edited two books on power devices. He is the chairman of EDS Technical Committee on Power Devices, and is an EDS Distinguished Lecturer in the power IC field. He has been on the technical com-

mittees of several IEEE conferences such as IEDM, ISPSD, and PESC.

S. C. Sun is an Associate Director of National Nano Device Laboratory and Professor of Electronics Engineering at National Chiao Tung University, Hsinchu, Taiwan, R. O. C. He is currently Vice Chairman of IEEE ED Taipei Chapter. He received B.S. with highest honors in electrical engineering from National Cheng Kung University and Ph.D. degree from Stanford University. His present research interests include high dielectric constant materials for DRAM application, CVD metallization, rapid thermal processing, and CMOS device physics and technology. He has worked at Hewlett-Packard, AT&T Bell Laboratories, and AMD in the United States for 16 years. He returned to Taiwan in 1991. Dr. Sun has served on various technical program committees of IEDM (U.S.), MicroProcess Conference (Japan), Electron Devices and Materials Symposium (Taiwan), and International Conference on Electronic Materials (Taiwan). He is a member of Sigma Xi, Eta Kappa Nu, and Phi Tau Phi honor societies.

IRPM

(continued from page 5)

organized excursions to historic and natural spots of interest. In the evening a banquet will be held at the Convention Center. For golf enthusiasts, there will be a golf tournament.

Last but not least, the IPRM '96 conference offers delegates an excellent opportunity to acquaint themselves with the products and services of leading companies in the growing field of Indium Phosphide and Related Materials. An exhibition by manufacturers and laboratories will open on Monday, April 22 and continue until Thursday, April 25. Attendees will have ample opportunity to visit the exhibition during the conference.

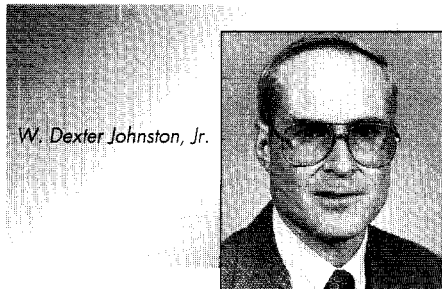
You are invited to be part of the stimu-

lating forum of IPRM '96. Although the deadline for submission of contributed papers has expired by November 10, 1995, you are encouraged to submit your post deadline paper that describes new technical results (not previously presented) in the field of above mentioned topics. Please note the **deadline for post deadline papers: March 19, 1996!**

All participants of IPRM '96 are encouraged to register in advance, before March 22, 1996, to obtain the advance registration fee discount. If you need any further information, or if you have not received the IPRM '96 Call for Papers, please contact: IPRM '96 Secretariat, ITG - VDE, Volker Schanz, Stresemannallee 15, D-60596 Frankfurt/Main, Germany, TEL: +49.69.6308-360, FAX: +49.69.9631-5217, E-mail: 100145.67@compuserve.com

Society News

A Message from the Outgoing President



W. Dexter Johnston, Jr.

The past two years have seen great strides made in the activities of the Electron Devices Society. We have re-started a Newsletter that continues to draw very favorable comments from our members around the world. We have more than doubled the total number of our chapters, and tripled the number in Region 8 (Europe, Middle East and Africa). We have added chapters in Region 10 (Asia and the Pacific) as well as in the US, and have added Student Branch Chapters as well. We now hold annual Chapter Chairpersons meetings in Regions 8 and 10.

We now have an extensive Home Page on the World Wide Web. We have doubled what was already an extensive sponsorship of technical conferences, so that we now sponsor or co-sponsor 32 conferences, are technical co-sponsors of 26, and cooperate with an additional 36. We have a newly invigorated and expanded Distinguished Lecturer Program, and are announcing (elsewhere in this issue) an all-electronic Journal (on Technology CAD, or TCAD) we are publishing on the Web.

Our Society has taken a leading role with the IEEE STAR program, which aims to mentor and encourage high school girls to continue with the needed math and science courses to keep an engineering career as a viable option. By the way, the first chapter with a committed STAR program in place is our new Bulgaria chapter, in the former Soviet Union. We have expanded our AdCom membership and have achieved an improved reflection of the diversity of our world-wide, multicultural and multigender membership.

Quite frankly, it has left me a bit breathless just watching all this go on — certainly I have had little to do with the real work that has made it all possible. Apart from the time and effort of literally hundreds of

Society volunteers, two factors have been essential to this progress.

The first is the financial well being of our Society. Over the past eight years we have made a concerted effort to place all of our activities on at least a break-even basis, so that, for example, successful conferences are not subsidizing publication subscription rates, etc. We have substantially improved the management of the conferences for which we provide financial backing, and now annually run a "Best Practices" workshop for our technical meeting organizers. We have managed to hold or reduce charges to members while bringing non-member charges more into line with market realities — still offering a great bargain in comparison to the non-IEEE journals, conferences, and other services with which we compete. This financial well-being has enabled us to be proactive in addressing local economic factors that otherwise would provide severe impediments to our efforts to make the Electron Devices Society truly international in scope and participation.

The second essential element was the decision taken six years ago to form an Executive Office to provide full-time, professional administration of the Society's affairs. We have been extremely fortunate to have employed Bill Van Der Vort as our Executive Director — and equally fortunate that one of his first acts was to hire Laura Riello as our Administrator. Many of you have had contact with either or both of them over the past five and a half years, as they have taken on all the myriad details of our rapidly expanding operations.

Looking forward, I see a major opportunity for the next five years to lie in harnessing the power of the Internet to further improve our service to members for timely dissemination of technical information in the Electron Devices fields. I foresee, for instance, that ED membership could include electronic subscription rights "for free", at least to ED Letters. There is some fixed cost for Web publication, but the variable cost to the publisher is zero.

We would save the costs of paper, postage, and most importantly, circumvent the postal delivery problems and delays which confront our members outside the US and Canada. Initially, we would contin-

ue to offer the print subscription, and the electronic version might be "incomplete" unless all authors were willing and able to supply an electronic version of their accepted paper in an appropriate format. (They're asked to do that now — we run about 75% compliance, and encounter a substantial extra charge from IEEE for manuscripts which do not comply.) The major impediment to doing this now is the need to protect our overall cost/revenue stream balance, which will require some new paradigms governing print/non-print, member/non-member cost sharing, copyright security, password access, etc. These are all solvable issues, and I fully expect we will have answers within the first year of operations of our new TCAD journal.

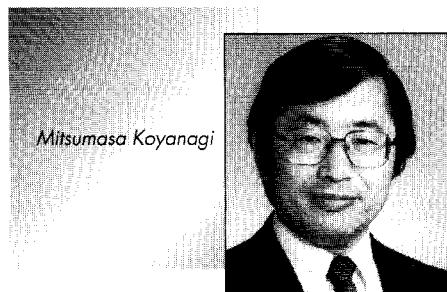
I have really enjoyed the past two years, and the opportunities serving as your President has afforded me to meet and work with colleagues in the Society and more widely throughout IEEE. I am especially pleased to be able to leave office with the sense that the Society is active, growing, and financially and technically healthy and strong. I can wholeheartedly recommend to those of you in the Society who are not now actively involved, to become so; and to those of you who are now involved in some way, to become more so.

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, at the address given on page 2.

EDS Members Named Winners of 1996 IEEE Field Awards

Seven members of EDS have been named winners of 1996 IEEE Technical Field Awards. These awards will be presented at various meetings/conferences in 1996.



Mitsumasa Koyanagi

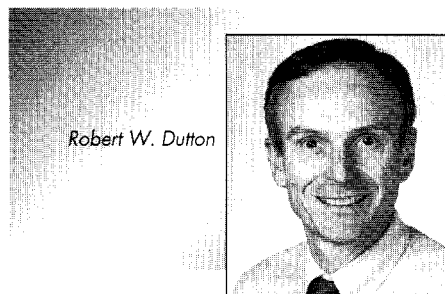
Mitsumasa Koyanagi, Tohoku University, Sendai, Japan, will receive the IEEE Cleo Brunetti Award "for pioneering research and development of the three dimensional stacked capacitor DRAM cell." Dr. Koyanagi currently is a Professor in the Intelligent System Design Laboratory, Department of Machine Intelligence and System Engineering, Tohoku University, Sendai, Japan. Previously, Dr. Koyanagi had been with Hitachi (1974-1985), Xerox (1985-1988), and Hiroshima University (1988-1994). He did pioneering work on new process and device technology for DRAM applications. Most well known is his invention of the three-dimensional stacked-capacitor DRAM cell. Stacked-capacitor DRAM cells have been widely used in mass-production of DRAM chips since the 4Mb generation. Dr. Koyanagi is a senior member of IEEE. He received the 1991 Ohkouchi Award and the 1994 SSDM Award.



Seiki Ogura

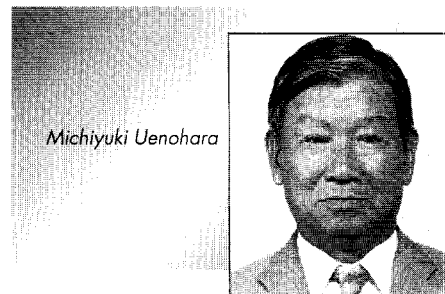
Seiki Ogura will receive the IEEE Morris N. Liebmann Memorial Award "for contributions to and leadership in the development of the lightly doped drain silicon field effect transistor (LDDFET)." Dr. Ogura is a Senior Technical Staff Member at IBM's Semiconductor Research and

Development Center, East Fishkill, New York. In the late 1970's, Ogura recognized the potential of making a faster MOSFET device for a given reliability by the use of self-aligned lightly-doped drain (LDD) junction profile. He led the IBM team to demonstrate the design, process, and benefit of the LDD device. With LDD, the VLSI industry has been able to extend the 5-volt power supply to sub-micron devices, and the 3.3-volt power supply to sub-half-micron devices. Ogura also did pioneering work on the application of sidewall spacer to the fabrication of LDD devices, and on double-implanted LDD and fully-overlap LDD devices. Currently, Ogura is leading an IBM team in the development and implementation of non-volatile memory technology. Dr. Ogura is a Fellow of IEEE.



Robert W. Dutton

Robert W. Dutton will receive the IEEE Jack A. Morton Award "for seminal contributions to semiconductor process and device modeling." Dr. Dutton is currently a Professor of Electrical Engineering and Director of Research at the Center for Integrated Systems, Stanford University, Stanford, California. For more than two decades, Dutton's research has centered on technology CAD — modeling and computer aids for microelectronics technology, devices, and circuits. His research group has pioneered in the development of process simulators such as SUPREM, device simulators such as PISCES, and the broad application of TCAD to modelling of silicon and compound semiconductor technologies. During 1984-1987, he was Editor of the *IEEE Transactions on Computer-Aided Design*. Recently, he has pursued the application of parallel computers to 3D modeling. Dr. Dutton is a Fellow of IEEE, a member of the National Academy of Engineering, and the recipient of the 1987 IEEE EDS J.J. Ebers Award.



Michiyuki Uenohara

Michiyuki Uenohara will receive the IEEE Frederik Phillips Award "for fostering cooperative R&D management and advancement of microelectronics technology." Prior to joining NEC in 1967, Dr. Uenohara had worked at Bell Laboratories at Murray Hill, New Jersey. At NEC, Dr. Uenohara first managed the Electron Device Research Laboratory. After managing several other laboratories and the Corporate Strategy Development Center, he was promoted to General Manager of Central Research Laboratories in 1971. He was elected a member of the Board of Directors and managed corporate R&D and technology until he took his current position in 1989. He is Chairman, NEC Research Institute Ltd. in Princeton, Chairman, NEC Research Institute of Business Management, and Professor, Graduate School of Management and Information Sciences, Tama University in Tokyo. Dr. Uenohara has pioneered several new microwave device technologies, and is well-known for his development of extremely low noise amplifiers. At NEC, he has devoted himself to promote not only corporate R&D but also national R&D. Dr. Uenohara is a Life Fellow of IEEE, and has received numerous prestigious awards and honors, including the Medal of Honor with Blue Ribbon from the Japanese Government, and the Microwave Pioneer Award from IEEE PGMAT.

Hiroyuki Sakaki will receive the IEEE David Sarnoff Award "for pioneering studies of quantum effects in semiconductor microstructures." Biographical information for Sakaki was not available at press time.

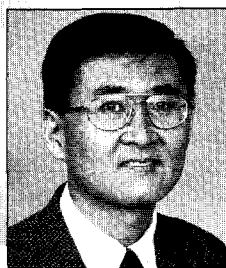
Rudy J. van de Plassche will receive the IEEE Solid-State Circuits Award "for pioneering contributions to the design of integrated circuits for data conversion." Dr. van de Plassche is a Philips Research Fellow. He has made many significant contri-

Rudy J. van de Plassche



contributions to the literature and product applications of analog circuits, particularly A/D and D/A converters. He contributed to the first sigma-delta converter in digital voltmeter applications in 1975. His 1976 ISSCC paper on dynamic element matching resulted in a 14-bit oversampled D/A converter for digital audio applications in 1978. His 1979 ISSCC paper on folding techniques in high-speed A/D converters also resulted in a 650 MHz A/D converter design in 1991. Dr. van de Plassche recently published a book entitled "Integrated Analog-to-Digital and Digital-to-Analog Converters," and is co-editor of three other books in Analog Circuit Design. He received the 1988 Veder Award of the "Stichting Wetenschappelijk Radiofonds Veder." He is a Fellow of IEEE.

Sung-Mo (Steve) Kang



Sung-Mo (Steve) Kang will receive the IEEE Graduate Teaching Award "for inspirational graduate teaching and fostering of interdisciplinary research." Prior to 1985, Dr. Kang was with AT&T Bell Laboratories at Murray Hill, New Jersey. Currently, Dr. Kang is Professor and Head of the Department of Electrical and Computer Engineering, and Research Professor of Coordinated Science Laboratory, Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign. He is also Director of Center for ASIC Research and Development and an Associate in the Center for Advanced Study and an University Scholar at the University of Illinois. Dr. Kang has served professional fields in many capacities, including as the 1991 President of the IEEE

EDS Announces an "All Electronic" Journal

The Electron Devices Society is happy to announce a new journal to be delivered electronically on the World Wide Web. The JOURNAL OF TECHNOLOGY COMPUTER AIDED DESIGN is aimed at people working on TCAD, that is modeling and simulation of semiconductor devices, processes, and equipment. Publication on the WWW is an experiment which should allow rapid publication and new modes of publication including multimedia. Look for information about this new journal at the URL: <http://www.ieee.org/journal/tcad>

The above location will contain the journal along with information for authors about submitting. By the time you read this, we should be "open for business." Mark Law at the University of Florida has agreed to be editor. He can be reached at the e-mail address of: tcad-editor@ieee.org

The TCAD Journal will use the conventional peer review process to assure quality, although the process will be carried out electronically over the network rather than with paper, mail and fax. Articles will be author formatted and can include movies, which are often a good way to show simulation results. Initially, we plan to accept articles in three formats: HTML, PostScript, and PDF. Publication will be incremental upon completion of the review with no delays waiting for an issue, printing, or mailing.

This journal will be archival, which means that EDS intends to keep it available. Like any other IEEE technical publication, its articles will be listed by the abstracting services like INSPEC, so that publication here should have the same status as publication on paper.

EDS will be encouraging authors to make use of the new capabilities available to them. We also plan to try parallel discussion using email listserv for comments and questions about articles.

For the present, you will be able to access the Journal without subscription. We will be developing subscription lists however so that people with WWW access and viewer can be notified whenever a new article is posted.

This new journal should help EDS and IEEE learn about fully electronic publishing. We intend to use it as a platform to investigate some of the new capabilities that the WWW makes possible. Up front are immediate features like hyperlinks to help organize the flow of an article, ready availability of color, ease of text searches, movies, and sound. Beyond that are possibilities of publishing data (perhaps in extensible documents) which is a key need for TCAD simulations, and perhaps even having active articles which allow the reader to test a simulation with their own data. There clearly are opportunities we don't understand yet.

This is an exciting project for EDS. You may want to look at our progress even though you do not work in device or process simulation. We are trying to step into a new paradigm without making too many mistakes.

Frederick H. Dill



Circuits and Systems Society, as the founding Editor-in-Chief of the *IEEE Transactions on VLSI Systems*, and as a member of the University Advisory Board of Semiconductor Research Corporation. He has received many awards, including the IEEE CAS Meritorious Service Award (1994), IEEE Darlington Prize Paper Award (1993),

SRC Inventor Recognition Award (1993), Best Paper Award from the International Conference on Computer Design (1987), IEEE Computer Society Meritorious Service Award (1990), and Myril B. Reed Best Paper Award from Midwest Symposium on Circuits and Systems (1979). Dr. Kang is a Fellow of IEEE.

Regional and Chapter News

USA, Canada & Latin America (Regions 1-6, 7 & 9)

ED Lehigh Valley Chapter

The Lehigh Valley Section's EDS Chapter, that covers geographically most of Eastern Pennsylvania and part of Western New Jersey, had a series of very successful meetings for the past six months. The EDS Chapter Chairman, M. Ayman Shibib, of AT&T Bell Labs in Reading, PA., started a series of one-day video courses at the rate of about once a month. The topics covered mostly technology and manufacturing issues that fulfilled the local interest of the membership. The local area has two main facilities for microelectronics research and development and manufacturing at Allentown and Reading both belonging to AT&T Microelectronics. AT&T provided the facilities to the EDS chapter including a class room type conference room and the chapter provided the refreshments for the courses. Thus at minimal cost to the chapter, the video courses were provided free of charge to the membership. The meetings were open to all IEEE Section members with priority given to EDS members, as it was felt that this may be a good way to get the interest of IEEE members in the EDS chapter as indeed happened with some of the attendees that eventually joined the EDS chapter. The meetings were held on Fridays from 9:00 am to 4:00 pm at the AT&T Reading works and typically attracted 30 attendees. That turned out to be the right size for the classroom facility with VCR and two large TV screens. Positive feedback encouraged the continuation of this series and another course was held on Nov. 3rd. The help of Bill Van Der Vort and Laura Riello of the EDS Executive Office is appreciated and made everything go smoothly. After a very positive response and numerous comments from the membership that mostly expressed the "value" they got from joining the local IEEE section and EDS chapter, I encourage other EDS chapters to try this for a chapter meeting. For comments or inquiries, contact the Lehigh Valley Section EDS Chapter Chairman, M. Ayman Shibib at TEL: 610-939-6576, FAX: 610-939-6795, or E-mail: a.shibib@ieee.org.



Hyatt Regency, Maui

International Symposium on Power Semiconductor Devices & ICs (ISPSD '96)

The eighth ISPSD international conference will be held in the US in the Hyatt Regency Maui on May 20-23, 1996, in Maui, Hawaii. It was held in 95 in Yokohama, Japan, and in 94 in Davos, Switzerland. It rotates annually between Europe, Japan, and the U.S.

ISPSD is the premier conference on many topics of power devices and integrated circuits, including technology, processing, materials, packaging and reliability. ISPSD'96 will be extended to four days instead of three to allow for a new feature. Besides the oral papers and the poster sessions, a new half day workshop has been added to the program in order to establish a technology road map for power devices and ICs similar to the technology road map of VLSI. The workshop will discuss three broad areas in the field: high voltage power devices, low voltage power devices, and power integrated circuits. All attendees of the Symposium will be able to contribute to the road map by joining one of the sessions of the workshop, and the workshop will conclude with a joint session that will present a summary of the power semiconductor technology road map.

For further information, please contact either the General Chairman, Richard Williams at 408-970-3940, or the Technical Program Chairman, Andy Salama at 416-978-8658.

ED Orlando Chapter

— by Peter J. S. Yuan

The Orlando chapter of the EDS planned a seminar series for the Fall of 1995. These seminars were hosted by the Department of Electrical Engineering at the University of Central Florida. Two of the talks in the series were by AT&T Bell Laboratories engineers. One talk, on emerging process technologies for quarter micron CMOS fabrication, was given by Dr. Chang-Kuei Huang. This talk discussed the challenges that still have to be met in the manufacturing of CMOS integrated circuits with device feature sizes smaller than 0.25 micron — the sub-quarter micron process technology is currently under development at many industrial laboratories. The next generation of CMOS process technologies for the year 2010 is likely to push the state-of-the-art for some consumer products to a technology that would require MOS transistors with feature sizes on the order of 0.1 micron or smaller.

The second talk of the seminar series was given by Dr. Steven Hillenius, a Distinguished EDS Lecturer for 1995. Dr. Hillenius, a member of the AT&T Bell Laboratories technical staff, is also the EDS Publications Chair. His talk was on the manufacturing technology of ULSI circuits. At the time this writing, the rest of the seminars were not yet scheduled.

ED Boston Chapter

— by George Turner

The Boston EDS chapter has organized a

monthly evening lecture program, with invited speakers from local industries and Universities. This year, in an attempt to increase student member participation in the lectures, the chapter decided to rotate the location of the lectures amongst three institutions: MIT (Cambridge), Northeastern University (Boston), and the MIT/Lincoln Laboratory (Lexington). The planned lectures are on a wide variety of topics which reflect the diverse interests of the EDS membership in the Boston area. The Boston chapter is also planning to have a number of joint meetings with other IEEE chapters on topics of overlapping interest. This EDS chapter is fortunate to have the support of the IEEE Boston office. In particular, the local IEEE news magazine — the REFLECTOR—helps keep the members informed of all of the local IEEE activities. The EDS chapter leadership is quite excited about the upcoming year and is looking forward to providing a wide range of activities for its members in the Boston area.

— *Elias D. Towle, Associate Editor*

AP/ED/MTT San Diego Chapter

— *by Paul Yu*

During the chapter meeting of May 31, 1995, Dr. Michael VanBlaricum of Toyon Research Corporation presented a talk on "Photonics Systems for Antenna Applications." Applications of Photonics in shipboard EMC monitoring, EMP measurements, anechoic chamber calibration, novel antenna and array designs, antenna remoting, and smart skins were discussed. He also presented an overview to the various types of photonics links and modulator systems that are available to the antenna engineers. There was much discussion after the presentation.

At our June 21st chapter meeting, Dr. Don Parker of Hughes Aircraft presented a talk on "Advances and Trends in Active Array Technology". Dr. Parker discussed recent advances in the development of transmit/receive modules for active electronically scanned arrays. Recent significant improvements in the performance of these modules were primarily attributed to advances in PHEMT and HBT monolithic microwave integrated circuits, and manufacturing automation. In addition, advanced packaging designs have reduced the size, weight, and complexity of modules. Both meetings were well attended.

On September 27, Dr. Julia Brown of Hughes Research Labs presented a talk on "III-V HEMT Technology". Dr. Brown stressed the significance of ECR etcher in

the fabrication of low noise InP HEMT and the importance of advanced analytical tools such as Atomic Force Microscope in the scaling down of gate length of high performance p-HEMT. She also presented material about the STAR program and there was much discussion at the end of the meeting.

In November, Dr. Walter Curtice presented a talk on high frequency, large signal modeling of microwave devices and circuits. In December, Dr. Tony Acampura of UC San Diego will present a talk on broadband wireless communication systems.

ED/LEO Columbus Chapter

— *by Steve Ringel*

The Columbus EDS chapter co-sponsored weekly seminars as part of the "Nanostructure Material and Devices Seminar Series" during the 1994-95 academic year, held in the Department of Electrical Engineering at The Ohio State University. This seminar series has run since Sept. 1992 and continues to be extremely well-attended, with an average of more than 30 attendees per seminar since its inception. We co-sponsored a total of 20 external and internal speakers during the 1994-95 academic year who covered a wide range of topics that include self-assembly of quantum wires and dots, real-time optical diagnostics for epitaxial growth, high resolution dry etching for advanced electronics and photonics, ferroelectric memories, blue lasers and SiGe alloys, nanolithography, and others. The external speakers were Dr. Tom Pearsall (U. of Washington), Dr. Fred Polak (Brooklyn College), Dr. Michael Mundschau (Bowling Green St. U.), Dr. Jim Merz (Notre Dame), Dr. Pierre Petroff (UCSB), Dr. David Aspnes (N.C. State), Dr. Steve Pearton (U. Florida), Dr. Chris Roland (N.C. State), Dr. R Ramesh (U. Maryland), Dr. Arto Nurmikko (Brown U.), Dr. Larry West (Integrated Photonics Systems, Inc.), Dr. John Tucker (U. Illinois) and Dr. Peter Guilfoyle (OptiComp Corporation). At the time of this writing, we have high expectations for the coming academic year with continued support of this seminar series as our primary activity.

ED Rochester Chapter

— *by E. Friedman*

An educational short course program, utilizing video tapes from the 1994 IEDM and jointly sponsored with the local IEEE Education Chapter, was held during May 1995 at the Rochester Institute of Technology. Specifically, a seminar on "Mixed Sig-

nal IC Technologies and Design" attended by seven people was held on May 5 followed by a second seminar on "Advanced Device Characterization and Test Methodologies" with an attendance of thirteen people that was held the following week on May 12. Each program cost \$45 for IEEE members and \$60 for nonmembers and included morning and afternoon snacks, a box lunch, and a 300 page set of notes. The attendees were primarily from local industrial companies, such as Kodak and Xerox.

The Rochester section EDS chapter co-sponsored a presentation with Xerox Corporation by Prof. Richard S. Muller of the University of California at Berkeley. The meeting was held on September 26, 1995 at Xerox in Webster, New York and was titled, "Micro Electro Mechanical Systems 1995 -A Status Report." Prof. Muller, who directs the Berkeley Sensor & Actuator Center, reviewed the significant research results being developed at the Center on micromechanical systems as well as the growing commercial prospects. Recent progress at the intersection of quantum optics and micromechanics was discussed and examples were provided. A new fabrication technology called Hexsil capable of building larger, stronger mechanical structures was described and progress on thermally actuated mechanical structures was also reviewed. Over 40 people attended the presentation. The speaker is a member of the EDS Distinguished Lecturer Program.

Every November for the past 18 years this local EDS chapter, with financial assistance from the Rochester section, has run a small conference on electron devices. The upcoming 19th Annual Electron Devices Activities in Western New York Conference was held on November 1 at the Rochester Institute of Technology. Registration was free. Research on a variety of areas relating to electron devices was discussed. This conference had only recently been upgraded to "Technical Co-sponsorship" by the Electron Devices Society and a significant increase in the geographical diversity of the submitted papers had occurred. As with prior occurrences, the conference was attended by about 80 to 100 engineers working in local industry and in the neighboring academic institutions. The conference program was composed of invited speakers, paper presentations, and poster papers. The invited speakers were Dr. Gary A. Feather of Texas Instruments, Dallas, TX who spoke on "Digital Mirror Devices: A Micro Electro

Mechanical System for Digital Imaging," and Prof. Tom B. Jones of the University of Rochester, who spoke on "Particle Mechatronics." As always, the program digest was distributed to the attendees.

— Paul K. L. Yu, Associate Editor

Europe, Middle East & Africa (Region 8)

ED Benelux Chapter

— by Cor Claeys

The EDS Benelux Chapter, together with the MTT&ED French Chapter, are currently organizing the 2nd European Low Temperature Electronics Workshop (WOLTE-2) scheduled for June, 1996 in Leuven, Belgium. The Meeting has technical co-sponsorship from the IEEE Electron Devices Society and the Workshop organizer is Prof. Cor Claeys from IMEC, Leuven. The workshop focuses on the different areas of low temperature electronics, particularly with silicon and compound semiconductors and high temperature superconductivity. 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, applications. For further information, please contact Chapter Chair: Prof. Cor Claeys, IMEC VZW, Kapeldreef 75-B3001 Leuven, Belgium, TEL: 32-16-281-328; FAX: 32-16-281-214, E-mail: claeys@imec.be

ED/MTT France Chapter

— by Robert Adde

In 1995 the Chapter benefitted from the strong development of the EDS Distinguished Lecturers Program. The Chapter welcomed Dr Hiroshi Iwai from ULSI Res. Labs, Toshiba, Kawasaki, Japan on June 6th. Dr. Iwai presented an exciting overview on "Silicon MOSFET scaling beyond 0.1 micron." Then on September 28th, the Chapter was honored by the visit of EDS Vice-President Dr. Louis Parrillo from Motorola, Austin, Texas, after ESSDERC95 and the 1995 EDS Region 8 Chapters Meeting in the Hague, Netherlands. Dr. Parrillo made an enlightening presentation on "Advanced Technology Challenges for High-Performances Microprocessor Application" and gave to attendees an introduction to the ULSI Logic Technology Roadmap. The Chapter also had a lecture from Prof. G. Rebeiz, Univ. Michigan, Ann Arbor on "Mm-Wave Elec-

tronics and μ machined μ waves at the Univ. of Michigan."

The Chapter's primary event for 1995 was an IEEE Int. Topical Meeting on "Nomadic μ wave Technologies and Techniques for Mobile Communications and Detection" held on Nov. 15-17 in Arcachon, a sea-resort nearby Bordeaux and to be reported in the next Newsletter issue.

The Chapter in 1996 will pursue a program of Distinguished Lectures, with an emphasis on the promotion of student membership.

The Chapter's primary event for 1996 will be its involvement and technical sponsorship of the 4th European Gallium Arsenide Applications Symposium (GAAS '96) in Paris, France, 5-7 June, 1996. For information on the topics which cover widely microelectronic and optoelectronics devices and circuit using III-V and IV-IV compound semiconductors, please contact Dr. Christian Rumelhard, CNAM, TEL: 33 1 40 27 21 79; FAX: 33 1 40 27 24 81; E-mail: rumelhard@cnam.fr

A CAD workshop involving European Chapters is planned within GAAS'96. For further information, please contact Chapter Chair: Dr. Robert Adde, IEF Bt 220, UPS, 91405 Orsay, TEL: 33-1-69-41-78-50; FAX: 33-1-60-19-25-93, E-mail: adde@ief-paris-sud.fr or r.adde@ieee.org

ED Central and South Italy Chapter

— by Paolo Spirito

The ED members in the Section are nearly 60. The past and upcoming Chapter activities are:

Technical co-sponsorship of the "National Conference of the Electronics Group of the National Council of research (CNR), held in Riva del Garda on June 18-21, 1994. The Conference topics were: semiconductor technology, device physics, modeling and characterization, microelectronics, VLSI systems. The attendance was about 150 people.

Organization of a seminar by Prof. Hans Hartnagel, from the University of Darmstadt on "Some new concepts with HBT devices" held at the University of Napoli, on June 24th, 1995.

Technical co-sponsorship of the "IEEE International Conference on Microelectronic Test Structures" (ICMTS '96) in Trento March 26-28, 1996.

For further information, please contact Chapter Chair: Dr. Paolo Spirito, Univ. Napoli, FAX: 39-81-5934448; E-mail: Spirito@dispo.dis.unina.it

— Robert Adde, Associate Editor

ED Sweden Chapter

— by Mikael Ostling

A new ED chapter was started in Sweden during the summer. The official starting date was July 6 and the first meeting was held on August 29. The meeting was co-arranged with the Sweden Section IEEE annual meeting and thereby a good exposure to the IEEE community was achieved. About 65 members is the present EDS membership count in Sweden.

The chapter has already been promised a starting grant from the IEEE Sweden section and also submitted a proposal to the EDS Executive Office for a subsidy for the coming year.

The first meeting gathered nearly 30 persons. An activity plan was presented and the ambition is to have one meeting per month. A half-day symposium on silicon devices and circuits will hopefully be arranged during spring. At the first meeting the main attraction was a talk by Dr Zsolt Toth-Pal from Ericsson Components who talked on "Sub-micron technology for changing supply voltage requirements."

MTT/ED/COM/AP Hungary Chapter

— by I. Frigyes

The chapter was founded in 1990. The number of members is 26. The reason for this diverse joint chapter formation is historical and given by the particular structure of the Hungarian Electrical and Electronics industries, or at least as what was the situation in 1990: microwaves was the kernel of the chapter, and the two main branches of microwave industry was Microwave Communications and Microwave Electron Devices.

The usual activity of the chapter is the organization of technical meetings approximately 4-5 times a year. Some rather recent activities include a one-day seminar given by Prof. Rao (University of Texas, Arlington) in 1993 on digital image coding. Several other meetings include lectures of IEEE speakers from abroad, e.g., by distinguished lecturers of MTT (Ivanek twice and Rizzoli).

Our future plans comprise similar activities: we'll organize at least two further technical meetings before the end of this year. A one-day seminar was held on October 4 on the subject of Telemedicine. The Hungary chapter also has an AdCom member, Prof. Mojzes.

— Mikael Ostling, Associate Editor

MTT/ED/AP/LEO UKRI Chapter

— by Terry H Oxley

Eighteen Chapter events were planned for



First High Frequency Postgraduate Students Colloquium

From left to right: Levin Sweeney (Hewlett Packard, UK), M C Townsend (University of Leeds - Best orally presented paper), Carson Stewart (Queen's University of Belfast - Colloquium Chairman), Q Chen (Queen's University of Belfast - Best poster paper), and Terry Oxley (IEEE Chapter Chairman).

the 1995 calendar year. Two have already been reported in previous EDS Newsletter issues and the Chapter is now pleased to report on four successful events which have taken place, at the time of writing, since the July issue of the EDS Newsletter:

- A Chapter meeting of thirty-six attendees enjoyed an excellent and well presented lecture by Alwyn Seeds at the University College London 7th June, on the topic of "Microwaves and Optoelectronics."

- The 11th July one-day course on "NEC (the industry-standard Method of Moments Code)" organized by ACES in cooperation with the Chapter was oversubscribed and some applicants could not be accepted. Repeating a similar event in 1996 is now being considered.

- The first "High Frequency Postgraduate Student Colloquium," jointly sponsored by the Chapter and Queen's University of Belfast with support by Hewlett Packard, was held at the Queen's University on 15th September. This attracted 24 high quality research papers from 11 UKRI Universities and 45 delegates. A delegate dinner was held the evening prior to the meeting. Prizes for the best orally presented paper and best poster paper were awarded by Hewlett Packard and the Chapter, respectively.

- A well attended meeting of thirty-eight engineers, enjoyed a most stimulating talk by Hamid Aghvami, at King's College London 20th September, on the topic of "Personal Communication Systems."

The following events held October to December will be reported in the April 1996 issue of the Newsletter:

- 2nd October at University of Manchester (UMIST) Lecture on "Micro strip Filter Design using Electromagnetic" by Daniel Swanson, Watkins-Johnson, USA.

- 4th October at University of York Lecture on "Micro strip Filter Design using Electromagnetic" by Daniel Swanson, Watkins-Johnson, USA.

- 9th October at Wembley Conference Center, London, Workshop on "RF & Microwaves ICs: the Technology Battlefield." In cooperation with the UKRI Communications Chapter and MRF95.

- 10-12th October at the Wembley Conference Centre Wembley, "Membership Booth" at MRF95 Exhibition. By courtesy of MRF.

- 12th October at ERA Technology Ltd. Lecture on "Micro strip Filter Design using Electromagnetic" by Daniel Swanson, Watkins-Johnson, USA.

- 15th November at University of Manchester (UMIST), Lecture on "Microwave Superconducting Circuits" by Mike J Lancaster, University of Birmingham.

- 27th November at King's College London, EDMO'95 Workshop on "High Performance Electron Devices for Microwave and Optoelectronic Applications." Jointly sponsored by the Chapter and King's College London. Technically co-sponsored by EDS and cooperatively supported by MTT, LEO and IEE.

- 28th November at IEE Savor Place London, "Tutorial Colloquium on MMIC's." In cooperation with IEE.

- 6th December at King's College London Lecture on "Transportation-An Electronic Future" by Paul Kimber, GEC Marconi Research Centre.

- 6th December at Queen's University Belfast Lecture on "Mixed Signal System Simulation" by Steve Tucker, Hewlett-Packard.

Planning for 1996 is in progress - the finalized program will be reported in the April 1996 EDS Newsletter:

- The evening lecture series is an important feature of the Chapter activities to provide local meetings across the UKRI and overseas speakers are particularly welcome. In 1995, the Chapter was very pleased to welcome the participation of Daniel Swanson from Watkins-Johnson USA, and for 1996 the Chapter is indeed fortunate to plan for the participation of Ralph Levy of RLA Microwave Engineering Consultants USA.

- The 2nd International Conference on Electronics Technologies ICET96 will be held at the Ramada Hotel Heathrow LONDON 10&11 June 1996. The conference organized by ISHM-UK in cooperation with the IEEE Chapter will focus on themes of Microwave Materials, Microwave Devices and Microwave Applications. Contact: ICET96 ISHM-UK, 13 Firelands, Bracknell, Berkshire RG12 9SB, UK, TEL: 44 1344-301491; FAX: 44 1344-481988.

- Other major events currently being planned include EDMO'96, the 2nd High Frequency Postgraduate Students Colloquium and a membership booth at MRF96.

For further information please contact Mr. Terry H Oxley, Chapter Chair, "Tremont", Back Lane, Halam, Newark, Notts NG22 8AG, UK.

ED/MTT Egypt Chapter

— by Ibrahim Salem

The Chapter activities during 1995 have included:

- 12th National Radio Science Conference which incorporated a special session for Electronics & Photonics. An invited paper on "Vertical cavity surface emitting lasers and applications" was presented by Dr. Waguhi Ishak, Manager of Photonics Technology Department, HP Labs, Palo Alto, CA. Thirty copies of the 1995 membership brochures were distributed during the conference.

- A meeting to discuss future membership enlargement and future activities, planned for October, but not held at the time of writing, will need to be reported in the April issue of the EDS Newsletter.

Planning for 1996 includes:

- The 13th N.R.S.C. to be held 19-21 March 1996. The IEEE Egyptian Section is one of the sponsors. Invited papers by D.L.

are welcome and our committee can share by the amount of 1000 Egyptian Pounds (about \$300).

For further information please contact Professor Ibrahim Salem, Chapter Chair, 17 Elqouba Street/3, Roxy Heliopolis, Cairo-11341, Egypt, TEL: 20-2-258-0256; FAX: 20-2-349-8217.

ED Israel Chapter

— by Nathan Croitoru / Gady Golan

The ED Chapter organized the "Semiconductor Manufacturing" IEDM Videotape Short Course. The Meeting, coordinated by Professor N. Croitoru and Dr. G. Golan, was held 10th May 1995 in the "Center For Technological Education - Holon." Approximately 150 attendees participated, most of them being Electrical Engineering students from 3rd-4th year. Following the video course the panel members of the meeting gave short lectures and the end of the meeting was opened to free questions and answers by all participants. The meeting was very successful and we intend to have another session in the coming autumn semester.

— Recently, the Chapter has been negotiating with the Israel Vacuum Society (IVS) and the Material Society for future cooperation on activities. This has not yet been approved by their boards.

For further information please contact professor Nathan Croitoru, Chapter Chair, or Dr. Gady Golan, Chapter Secretary, Tel-Aviv University, Faculty of Engineering, Dept. of Physical Electronics, Tel-Aviv 69978, Israel, TEL: 972-3-6408138; FAX: 972-3-64223508; E-mail: croitoru@eng.tau.ac.il

— Terry H. Oxley, Associate Editor

ED Romania Chapter

The Romania ED Chapter recently began to take advantage of the newly established EDS Videotape Lending Library for the IEDM short courses. Videotapes with workbooks were received containing the 1994 IEDM short course "Advanced Device Characterization and Test Methodologies." Three technical chapter meetings were organized in July for video presentation and discussions related to this course; one meeting was held in Baneasa S.A, the main electronic devices manufacturing company; another meeting was held at the R&D Institute for Microtechnology and the third meeting at the Electronics and Telecommunications Department from the University Politehnica, Bucharest.

Most of the ED chapter members were technically engaged in organizing activi-

ties for the 1995 International Semiconductor Conference (CAS'95) which was held October 11-14, 1995 in Sinaia, Romania. The conference was co-sponsored by the IEEE Electron Devices Society. The ED Chapter was also financially supporting the organization of a Student Research Session at this conference based on a subsidy offered by the Electron Devices Society. The conference participation expenses and 1996 IEEE & EDS membership fees for the student paper authors and an award for the best student paper were supplied from this subsidy. Related to this conference, a one day NexusEast Workshop on Microsystems Technologies was organized comprising tutorial presentations and a poster session. Among the invited lecturers were: Prof. R. Puers - Catholic University of Leuven, Belgium; Dr. W. Benecke - IMSAS Bremen, Germany; and Dr. S. Fontanelli - LETI Grenoble, France.

On October 17, 1995 a technical meeting was held at the Electronics and Telecommunications Department of the "Politehnica" University of Bucharest. Dr. George Charitat, from LAAS Toulouse, France delivered a presentation entitled "Discrete and Integrated Power MOS Structures and Technologies."

Our EDS Chapter will also take advantage of Dr. Michael Adler's initiative to provide microfiche copies of the past ten years of IEEE periodicals to selected libraries in Eastern Europe countries. Starting in October 1995 one such microfiche collection was made available for our members at the IEEE Romania Section library located at the Electronics and Telecommunications Department from the "Politehnica" University - Bucharest. This collection is very well received from all IEEE members in Romania because it fills large gaps in local libraries and enhances the professional activity of all specialists working in this field.

For further information, please contact the Chapter Chairman, Prof. Gheorghe Brezeanu, Dept. of Electronics & Telecom., University "Politehnica" of Bucharest, Str. Armata Poporului 1, Bucharest, Romania, TEL: 40-1-410-54-00/152; FAX: 40-1-410-47-40; E-mail: rusu@gef.pub.ro

MTT/ED St. Petersburg Chapter

The most significant Chapter activities planned for 1996 are the following:

The International Workshop CHIRAL'96 on electromagnetics of chiral, bi-isotropic and bi-anisotropic media will be held July 26 - August 4, 1996 in Moscow and St. Petersburg, Russia. The cross-disciplinary

meeting is devoted to discussions of the latest developments in electromagnetics, material science, and applications of novel composite materials for microwave and optical technology. The Workshop program consists of invited, contributed presentations and round-table discussions. This year the Workshop will be held parallel to the Fourth International Conference on Electric Transport and Optical Properties of Inhomogeneous Media (ETOPIM4) which will cover the problems of electromagnetic wave propagation in composite materials. For more details, please contact Dr. Alexei Vinogradov, FAX: (7)-095-484-26-33; E-mail: vin@eldyn.msk.ru

The International Vacuum Microelectronics Conference will be held July 7-12, 1996 in St. Petersburg, Russia. For details, please contact Dr. Dmitry Glazanov, St. Petersburg Bonch-Bruевич State University of Telecommunications, Nab. Moiki 61, 191065 St. Petersburg, Russia.

The Chapter intends to organize an International seminar "Day on Diffraction" to cover problems associated with the applications of mathematical methods in the diffraction theory. For additional information, please contact the Chapter Chairman, Dr. Sergei Tretyakov, St. Petersburg Technical University, 195251 Polytekhnicheskaya 29, St. Petersburg, Russia, TEL: (7-812)-552-76-85; FAX: (7-812)-552-60-86; E-mail: tretyakov@phd.stu.spb.ru

— Adrian Veron, Associate Editor

Asia & Pacific (Region 10)

Announcement of the International Symposium on Basis for the Future Electronics Technology (FUET'96)

— by Jun Ueda

The International Symposium on Basis for the Future Electronics Technology (FUET'96) will be held February 1-2, 1996, in Oiso, Japan. It is co-sponsored by Japan Electronic Industry Development Association (JEIDA) and Semiconductor Industry Research Institute Japan (SIRIJ) and is supported by the Ministry of International Trade and Industry and the IEEE ED Tokyo Chapter and other societies. In order to fulfill requirements on electronic systems, we must break through limitations by developing future electronics technologies. The Symposium will consist only of invited talks and technical discussions. It will have five sessions relating to "Social life and technology," "Silicon technology," "Semiconductor development strategies,"

"Networking," and "Emerging technologies." Throughout the Symposium, future development of electronic hardware technologies will be a clear view. For details, please contact the Symposium Chairman, Dr. Shoji Tanaka, SRL, TEL:+81-3-3536-5700 or Secretariat, JEIDA, TEL:81+3-3433-6861; FAX:+81-3-3433-2003.

Report of the 1995 International Conference on Microelectronic Test Structures (ICMTS'95)

— by Yukinori Kuraki

ICMTS'95 was held at the Noh-Theatre in Nara-ken New Public Hall, Nara, Japan on March 22-25. A total of 163 people participated in the technical sessions and 91 people for the tutorial sessions. There were 57 papers presented including 21 posters of which 21 were from Europe, 21 from Japan, 10 from USA and 5 from Asia. These papers were selected from 80 papers submitted. An equipment exhibition with short presentation was performed by 10 exhibitors. In the evening of March 23, the Japan-traditional Noh-show played by Konparu school pleased the participants. Dr. T. Himeno of Toshiba Corporation presented a paper entitled "A New Technique for Measuring Threshold Voltage Distribution in Flash EEPROM Devices," which was selected for the best paper award by the technical committee. The next meeting (ICMTS'96) will be held in Trento, Italy, March 26-28, 1996. Please contact Giovanni Soncini, IRST, Via Sommarive, Povo 38050, Trento, Italy, TEL: +39-461-314537; FAX: +39-461-314591; E-mail: soncini@irst.it

Report of the 1995 International Conference on Indium Phosphide and Related Materials (IPRM'95)

— by Osamu Wada

IPRM came to Japan for the first time this year as its 7th meeting. The conference held on May 9-13, 1995 at the Conference Hall, Hokkaido University, Sapporo was a great success. The meeting was the largest for IPRM with 356 participants including more than one hundred people from North America and Europe. There were 236 papers presented with 127 poster and 10 post deadline papers in a variety of InP-based technological areas covering bulk and epitaxial growth, material processing technique and electronic and photonic device applications. The increasing role of InP in the coming multi-media era was stressed by three plenary speakers, and exciting discussions went on throughout the meeting and also in a Rump

Session organized on May 11. In the afternoon of May 12, participants enjoyed an excursion in surrounding area of Sapporo, and cheered together in the Banquet at Sapporo Beer Garden. Along with technical sessions, an exhibition was open with 22 exhibitors showing new products. Next IPRM will be held April 22-25, 1996 at Schwaebisch-Gmuend, Germany. Paper deadline was November 10, 1995. For details, please contact Conference Chair, Dr. O. Hildebrand, Alcatel SEL, Stuttgart, Germany, FAX: +49 711 821 4 6355.

Report of the 1995 International Symposium on Power Semiconductor Devices and Integrated Circuits (ISPSD'95)

— by Toshiaki Yachi

The Seventh International Symposium on Power Semiconductor Devices and ICs - ISPSD'95 was held at the Pacific Convention Plaza Yokohama, Yokohama, Japan, from May 23-25, 1995. In response to the ISPSD'95 invitation, over 115 abstracts were submitted, out of which 40, for eleven oral presentation sessions and 48, for a poster session were selected by the International Program Committee. More than 370 people took part in the conference. Three plenary speeches were delivered by Dr. Diethard Huber-Wacker, Siltronic, describing technology and market trends for silicon wafers for power devices, Dr. Hiroshi Shimizu-The National Institute for Environmental Studies, describing the role of optimized vehicle design and power semiconductor devices to improve the performance of an electric vehicle, and Dr. Narain G. Hingorani-Hingorani Power Electronics, describing future role of power electronics in power systems. Technical sessions covered topics ranging from a new lateral FET for power IC, a high breakdown voltage IGBT with more than 4.5 kV, MOS devices for post-IGBT, and 6H-SiC power diodes. Professor Yoichi Kaya, Ex-president, Institute Electrical Engineers of Japan, also delivered the keynote speech describing global environmental threats and electrical engineering. The Eighth International Symposium on Power Semiconductor Devices and ICs - ISPSD'96 will be held in Kaanapali, Maui, Hawaii, from May 20-23, 1996.

Report of a meeting with EDS U.S. ADCOM Committee members

— by Hisakazu Mukai

Dr. Lewis Terman, EDS ADCOM Past President, and Dr. James Clemens, EDS ADCOM Technical Representative, visited

Japan and had a meeting with Tokyo Chapter representatives, Japanese ADCOM members, and Dr. Tohyama, the Electronics Society Chairman of the Institute of Electronics, Information and Communication Engineers, IEICE, of Japan on June 5, 1995. At the meeting, activity of Tokyo Chapter was reported along with a discussion on the member affiliations and ways to increase the number of members. The "sister" society relation between EDS and Japan Society of Applied Physics was followed up. Possibility of the same collaboration between EDS and the Electronics Society of IEICE was taken up and study was to be continued.

The report of the 1995 Symposium on VLSI Technology

— by Eiji Takeda

The 1995 Symposium on VLSI Technology was held at Kyoto Grand Hotel, Kyoto Japan on June 6-8. Sixty-four out of 161 papers submitted from Japan, USA, Korea, Taiwan, and Europe are presented. There were over 580 attendees (including 54 from Korea, 61 from Taiwan, and 142 from USA) at the technical sessions and over 230 at the Workshop ("What is the Future of SOI?") held prior to the Symposium. Two invited papers concerning semiconductor CIM system innovation towards the year 2000 were presented by Masahiro Iiri (Toshiba) and Zachary Lemnios (Advanced Research Project Agency) on the first day. In addition, to celebrate the 15th conference, two key note addresses, "Evolution of Integrated Electronics from Microelectronics to Nanoelectronics" and "Manufacturing Gigachips in the Year 2005" were given by Professor Takuo Sugano (Tokyo University) and Pallab Chatterjee (Texas Instruments), respectively. The next year's Symposium will be held at Hilton Hawaiian Village, Honolulu, Hawaii on June 11-13, 1996. For further information, please contact Phyllis Mahoney, Symposium on VLSI Technology, Suite 270, 101 Lakeforest Blvd., Gaithersburg, MD 20877 or Secretariat for VLSI Symposia, c/o Business Center for Academic Societies Japan, 5-16-9 Honkomagome, Bunkyo-ku, Tokyo 113, Japan.

— Hiroshi Iwai, Associate Editor

ED/LEO Australia Chapter

— by C. Jagadish

Dr. Dexter Johnston, Jr., EDS President visited our Chapter in August 1995 and gave seminars in Adelaide, Canberra, Mel-

bourne, Sydney and Townsville on "State of the Art Semiconductor Laser Devices for High Bit Rate Long Haul Communications." These seminars were jointly organized by the Chapter, various IEEE Sections and other institutions.

Prof. Peter Zory, LEOS Distinguished Lecturer visited the Australia Chapter in August 1995 and gave seminars in Brisbane, Canberra, Melbourne, Perth, Sydney on "Blue Green Quantum Well Lasers." These seminars were jointly organized by the Chapter, various IEEE Sections and other institutions.

Prof. Rod Tucker, University of Melbourne has been elected as LEOS Distinguished Lecturer for the year 1995-96. He has also been elected to the LEOS Board of Governors. For additional information, please contact the Chapter Chairman, Dr. C. Jagadish, TEL: +61-6-249-0363; FAX: +61-6-249-0511; E-mail: cxj109@phys.anu.edu.au

ED Hong Kong Chapter

— by Peter Lai

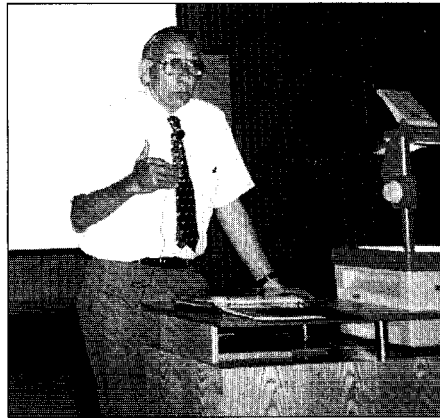
The 1995 Hong Kong Electron Devices Meeting, co-sponsored by the IEEE Electron Devices Society and the University of Hong Kong was held on July 1, 1995. This Meeting continues to fulfill an important mission of the IEEE Electron Devices Society (Hong Kong Chapter): to provide an opportunity where locally-based researchers can expand their professional network, and freely exchange valuable focused technical information.

Like the first Meeting in 1994, this second Meeting addressed some of the latest developments in the field of electron devices: silicon and compound semiconductor devices and technology, display technology, sensors, actuators and micro-electro-mechanical devices. Papers were submitted covering all of these topics, and serve the depths of members' special interests.

Another major conference to come to Hong Kong was the 1995 TENCON, which took place from Nov. 7-10, an IEEE-sponsored conference which rotates both in focus and in location among the Region 10 countries. This year's theme was "Asia-Pacific Microelectronics." We were actively involved in organizing the event.

For additional Chapter information, please contact the Chapter Chair, Dr. Man Wong, TEL: +852-2358-7057; FAX: +852-2358-1485; E-mail: eemwong@ee.ust.hk

— Cuong T. Nguyen, Associate Editor



Prof. Marvin White, EDS Membership Chair, visited Taiwan and presented a talk on "Defect Characterization in Scaled MOS Gate Insulators."

Announcement of the 1996 International Electron Devices and Materials Symposium (IEDMS'96)

The 1996 International Electron Devices and Materials Symposium organized by the National Tsing Hua University and Electron Devices and Materials Association, co-sponsored by the National Science Council and Ministry of Education, in cooperation with the IEEE EDS Taipei Chapter, will be held at the National Tsing Hua University, Hsinchu, Taiwan from Dec. 16 to Dec. 18, 1996. It will feature six symposia covering a broad range of device, material as well as processing topics: Silicon IC Technology, Compound Semiconductor Device and Technology, Electronic Materials and Characterization, Device simulation and Measurement, Display and Sensor Technology, Packaging and Testing. For further information, please contact: Prof. H.L. Hwang, Department of Electrical Engineer-

ing, National Tsing Hua University, Hsinchu, Taiwan, R.O.C., TEL: 35-715131 ext. 4056; FAX: 35-723927.

Report of a Visit by EDS Membership Chair Prof. Marvin White

Prof. Marvin White made a swift visit to Taiwan on September 14, 1995. As a part of distinguished lecturer series, Prof. White presented a talk on "Defect Characterization in Scaled MOS Gate Insulators" at National Chiao Tung University. Prof. White visited National Nano Device Lab (hosted by S.C. Sun) and TSMC (hosted by John Chen). Another purpose of Prof. White's visit was to talk with university and industrial centers in the Far East to discuss scaling of MOS nanostructures in his position as NSF Program Director for Solid-State & Microstructures.

Report of a meeting with EDS U.S. and Japan AdCom members

Dr. Lewis Terman, EDS Sr. Past President, Dr. James Clemens, EDS Region 10 Technical Activities Co-Chair, Dr. Shojiro Asai and Dr. Hiroshi Iwai of the EDS AdCom, visited Taiwan and had a meeting with Taipei Chapter representatives on May 31, 1995 during the 1995 International Symposium on VLSI Technology, Systems, and Applications (VLSI-TSA '95). At the meeting, activities of Taipei Chapter were reported. The cooperation of technical conferences among Region 10 countries including Taiwan, Korea, Hong Kong and Singapore was discussed. The possibility of an alliance between the Symposium on VLSI Technology and VLSI-TSA was also discussed.

— S. C. Sun, Associate Editor



IEEE-EDS Taipei Chapter Committee Meeting held at Taipei International Convention Center during 1995 International Symposium on VLSI Technology, Systems, and Applications (May 31 - June 2, 1995). From left: J.B. Kuo, C.P. Lee, S. Su, C. Hsu, H.L. Hwang, S.C. Lee, John Chen, Lewis Terman, S.C. Sun, Jim Clemens, C.Y. Lu, Shojiro Asai, Hiroshi Iwai, J.M. Chang, and C.C. Hsue.

EDS Meetings Calendar

(As of November 8, 1995)

<u>DATE</u>	<u>NAME/LOCATION</u>	<u>CONTACT/ABSTRACT DEADLINE</u>
1996		
Feb. 5-7	1996 IEEE MULTI-CHIP MODULE CONFERENCE /The Cocoonut Grove, Santa Cruz, CA	Lisa Pascal - Deadline: Past Due Tel: (408) 459-2263 Fax: (408) 459-4829
Feb. 6-7	1996 IEEE SOLID-STATE CIRCUITS WORKSHOP ON CMOS IMAGING TECHNOLOGY /San Francisco Marriott Hotel, San Francisco, CA	R. Daniel McGrath - Deadline: Past Due Tel: (617) 386-8792 Fax: (617) 386-6051
Feb. 8-10	1996 IEEE INTERNATIONAL SOLID-STATE CIRCUITS CONFERENCE /San Francisco Marriott Hotel, San Francisco, CA	Diane S. Suiter - Deadline: Past Due Tel: (202) 639-4255 Fax: (202) 347-6109
March 18-21	1996 NATIONAL RADIO SCIENCE CONFERENCE /The Military Technical College, Cairo, Egypt	Ibrahim A. Salem - Deadline: Past Due Tel: 20-2-258-0256 Fax: 20-2-349-8217
March 26-28	1996 IEEE INTERNATIONAL CONFERENCE ON MICROELECTRONIC TEST STRUCTURES /Grand Hotel Trento, Trento, Italy	Maddalena Bassetti - Deadline: Past Due Tel: 39-461-314-444 Fax: 39-461-314-591
April 21-25	1996 IEEE INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS /Conference Center "Stadtgarten", Schwabisch Gmund, Germany	Volker Schanz - Deadline: Past Due Tel: 49-69-6308-360 Fax: 49-69-6312-925
April 29-May 3	1996 IEEE INTERNATIONAL RELIABILITY PHYSICS SYMPOSIUM /Wyndham Anatole Hotel, Dallas, TX	Roy Walker - Deadline: Past Due Tel: (315) 339-3971 Fax: (315) 336-9134
Apr. 29 - May 5	1996 IEEE SEMICONDUCTING AND SEMI-INSULATING MATERIALS CONFERENCE /Hotel Atria, Toulouse, France	Josiane Sutra - Deadline: 12/15/95 Tel: 33-62-25-78-00 Fax: 33-62-25-79-99
May 5-8	1996 IEEE CUSTOM INTEGRATED CIRCUITS CONFERENCE /Town & Country Hotel, San Diego, CA	Melissa Widerkehr - Deadline: 12/6/95 Tel: (301) 527-0902 Fax: (301) 527-0994
May 13-14	1996 INTERNATIONAL SYMPOSIUM ON PLASMA PROCESS INDUCED DAMAGE /Westin Hotel, Santa Clara, CA	Charles K.P. Cheung - Deadline: 1/15/96 Tel: (908) 582-6483 Fax: (908) 582-5980
May 13-17	1996 IEEE PHOTOVOLTAIC SPECIALISTS CONFERENCE /Hyatt Regency Crystal City Hotel, Washington, DC	Eldon C. Boes - Deadline: Past Due Tel: (202) 651-7500 Fax: (202) 651-7502
May 20-23	1996 IEEE INTERNATIONAL SYMPOSIUM ON POWER SEMICONDUCTOR DEVICES AND INTEGRATED CIRCUITS /Hyatt Hotel, Maui, HI	Ayman Shibib - Deadline: Past Due Tel: (610) 939-6576 Fax: (610) 939-6795
May 27-31	1996 ELECTROMAGNETICS CONFERENCE /Albuquerque Convention Center, Albuquerque, NM	Chris W. Jones - Deadline: 1/15/96 Tel: (505) 243-0681 Fax: (505) 243-0683
May 28-31	1996 INTERNATIONAL CONFERENCE ON ELECTRON, ION AND PHOTON BEAMS /The Atlanta Marriott, Atlanta, GA	Stella Pang - Deadline: 1/15/96 Tel: (313) 936-2962 Fax: (313) 763-9324
June 5-7	1996 IEEE EUROPEAN GALLIUM ARSENIDE APPLICATIONS SYMPOSIUM /Conservatoire National Des Arts Et Metiers, Paris, France	Christian Rumelhard - Deadline: Not Available Tel: 33-1-40-27-21-79 Fax: 33-1-40-27-24-81
June 9-10	1996 IEEE SILICON NANOELECTRONICS WORKSHOP /Hilton Hawaiian Village Hotel, Honolulu, HI	Mark A. Reed - Deadline: 2/15/96 Tel: (203) 432-4306 Fax: (203) 432-7769
June 11-13	1996 IEEE SYMPOSIUM ON VLSI TECHNOLOGY /Hilton Hawaiian Village Hotel, Honolulu, HI	Richard A. Chapman - Deadline: 1/8/96 Tel: (214) 995-2366 Fax: (214) 995-1916
June 17-18	1996 IEEE MICROWAVE AND MILLIMETER-WAVE MONOLITHIC CIRCUITS SYMPOSIUM /Mascone Convention Center, San Francisco, CA	Mahesh Kumar - Deadline: 12/1/95 Tel: (516) 574-3295 Fax: (516) 574-1244
June 17-21	1996 INTERNATIONAL CONFERENCE ON ION IMPLANTATION TECHNOLOGY /The Stouffer Renaissance Austin Hotel, Austin, TX	Larry A. Larson - Deadline: 1/21/96 Tel: (512) 356-7145 Fax: (512) 356-3083
June 24-26	1996 IEEE DEVICE RESEARCH CONFERENCE /University of California, Santa Barbara, CA	Peter M. Asbeck - Deadline: 3/1/96 Tel: (619) 534-6713 Fax: (619) 534-0556
June 24-27	1996 POWER MODULATOR SYMPOSIUM /The Boca Raton Resort & Club, Boca Raton, FL	Janice D. Brooks - Deadline: 2/12/96 Tel: (703) 413-1282 Fax: (703) 413-1315
June 26-28	1996 EUROPEAN WORKSHOP ON LOW TEMPERATURE ELECTRONICS /IMEC, Leuven, Belgium	Cor L. Claeys - Deadline: 12/15/95 Tel: 32-16-2813-28 Fax: 32-16-2812-14

DATE	NAME/LOCATION	CONTACT - ABSTRACT DEADLINE
June 29	1996 HONG KONG ELECTRON DEVICES MEETINGS /The Hong Kong Polytechnic University, Hung Hom, Hong Kong	Peter P.T. Lai - Deadline: 3/1/96 Tel: 852-2859-2691 Fax: 852-2559-8738
July 7-12	1996 IEEE INTERNATIONAL VACUUM MICROELECTRONICS CONFERENCE /St. Petersburg Bonch-Bruевич State University of Telecommunications, St. Petersburg, Russia	Henry F. Gray - Deadline: 3/1/96 Tel: (202) 767-2812 Fax: (202) 767-0546
July 16-21	1996 INTERNATIONAL CONFERENCE ON THE NUMERICAL ANALYSIS OF SEMICONDUCTOR DEVICES AND INTEGRATED CIRCUITS /King David Hotel, Jerusalem, Israel	Paulene McKeever - Deadline: Not Available Tel: 353-1-6797655 Fax: 353-1-6792469
July 28-Aug. 2	1996 INTERNATIONAL CONFERENCE ON SCIENCE AND TECHNOLOGY OF SYNTHETIC METALS /Cliff Lodge Hotel, Snowbird, UT	Z. Vally Vardeny - Deadline: 2/96 Tel: (801) 581-8372 Fax: (801) 581-4801
Aug. 5-9	1996 INTERNATIONAL CONFERENCE ON MOLECULAR BEAM EPITAXY /Pepperdine University, Malibu, CA	David Grider - Deadline: 3/15/96 Tel: (310) 317-5007 Fax: (310) 317-5450
Aug. 11-16	1996 IEEE INTERSOCIETY ENERGY CONVERSION ENGINEERING CONFERENCE /Omni Shoreham Hotel, Washington, DC	Eleanor B. Dicks - Deadline: 12/15/95 Tel: (301) 946-1586 Fax: (301) 946-4374
Aug. 12-15	1996 INTERNATIONAL CONFERENCE ON MILLIMETER-WAVE AND FAR-INFRARED SCIENCE AND TECHNOLOGY /Beijing, China	Kai Chang - Deadline: 2/15/96 Tel: (409) 845-5285 Fax: (409) 845-6259
Sept. 2-4	1996 IEEE INTERNATIONAL CONFERENCE ON SIMULATION OF SEMICONDUCTOR PROCESSES AND DEVICES /Toyo University Bunkyo-ku, Tokyo, Japan	Akira Yoshii - Deadline: 4/1/96 Tel: 81-462-40-2140 Fax: 81-462-40-4306
Sept. 9-11	1996 EUROPEAN SOLID-STATE DEVICE RESEARCH CONFERENCE /Bologna Congress Center, Bologna, Italy	Giorgio Baccarani - Deadline: 3/22/96 Tel: 39-51-644-3012 Fax: 39-51-644-3007
Sept. 10-12	1996 ELECTRICAL OVERSTRESS/ELECTROSTATIC DISCHARGE SYMPOSIUM /Buena Vista Palace Hotel, Lake Buena Vista, FL	ESD Association Inc. - Deadline: Not Available Tel: (315) 339-6937 Fax: (315) 339-6793
Sept. 13	1996 HIGH FREQUENCY POSTGRADUATE STUDENT COLLOQUIUM /University of Manchester, Institute of Science & Technology, UMIST Manchester, UK	Terry H. Oxley - Deadline: Not Available Tel: 44-1636-815510 Fax: 44-1636-815865
Sept. 23-25	1996 INTERNATIONAL SYMPOSIUM ON ULTRA CLEAN PROCESSING OF SILICON SURFACES /Sofitel Hotel, Antwerp, Belgium	Marc Heyns - Deadline: 3/31/96 Tel: 32-16-28-13-48 Fax: 32-16-28-12-14
Sept. 29-Oct. 2	1996 IEEE BIPOLAR/BiCMOS CIRCUITS AND TECHNOLOGY MEETING /Marriott City Center Hotel, Minneapolis, MN	Janice V. Jopke - Deadline: 4/3/96 Tel: (612) 934-5082 Fax: (612) 934-6741
Sept. 29-Oct. 3	1996 IEEE INTERNATIONAL SOI CONFERENCE /Sanibel Resort & Spa, Sanibel, FL	Sandra Grawet - Deadline: 5/10/96 Tel: (310) 371-3438 Fax: (310) 371-5268
Oct.	1996 IEEE INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGIES /Lausanne, Switzerland	Jacques Kowalczyk - Deadline: 3/1/96 Tel: 41-21-693-6981 Fax: 41-21-693-4663
Oct.	1996 IEEE INTERNATIONAL CONFERENCE ON COMPUTER DESIGN: VLSI IN COMPUTERS AND PROCESSORS /Austin, TX	Jacob Abraham - Deadline: Not Available Tel: (512) 471-8983 Fax: (512) 471-8967
Oct. 2-4	1996 IEEE INTERNATIONAL SYMPOSIUM ON SEMICONDUCTOR MANUFACTURING /Hotel East, Tokyo, Japan	Secretariat of ISSM 96 - Deadline: 7/31/96 Tel: 81-3-3815-8775 Fax: 81-3-3815-8529
Oct. 8-11	1996 EUROPEAN SYMPOSIUM ON RELIABILITY OF ELECTRON DEVICES, FAILURE PHYSICS AND ANALYSIS /Best Western Dish Hotel, Enschede, The Netherlands	Herman E. Maes - Deadline: 3/15/96 Tel: 32-16-281-283 Fax: 32-16-281-501
Oct. 9-12	1996 INTERNATIONAL SEMICONDUCTOR CONFERENCE /Sinaia Hotel, Sinaia, Romania	Doina Vancu - Deadline: 4/15/96 Tel: 401-6333040 Fax: 401-3127519
Oct. 20-23	1996 IEEE INTERNATIONAL INTEGRATED RELIABILITY WORKSHOP /Stanford Sierra Camp, South Lake Tahoe, CA	Cleston Messick - Deadline: 7/15/96 Tel: (801) 562-7546 Fax: (801) 562-7500
Oct. 22-24	1996 IEEE INTERNATIONAL CONFERENCE ON SEMICONDUCTOR ELECTRONICS /Rasa Sayang Hotel, Penang, Malaysia	Burhanuddin Yeop Majlis - Deadline: 4/1/96 Tel: 603-825-1292 Fax: 603-825-9080
Nov. 3	1996 GALLIUM ARSENIDE RELIABILITY WORKSHOP /Peabody Orlando Hotel, Orlando, FL	Anthony A. Immorlica - Deadline: Not Available Tel: (315) 456-3514 Fax: (315) 456-0695
Nov. 3-6	1996 IEEE GALLIUM ARSENIDE INTEGRATED CIRCUITS SYMPOSIUM /Peabody Orlando Hotel, Orlando, FL	Elissa I. Sobolewski - Deadline: Not Available Tel: (703) 696-2254 Fax: (703) 696-2203

DATE	NAME/LOCATION	CONTACT - ABSTRACT DEADLINE
Nov. 6	1996 IEEE ELECTRON DEVICES ACTIVITIES IN WESTERN NEW YORK CONFERENCE /Rochester Institute of Technology, Rochester, NY	Yawcheng Lo - Deadline: 10/1/96 Tel: (716) 477-2023 Fax: (716) 477-4947
Nov. 12-14	1996 IEEE/SEMI ADVANCED SEMICONDUCTOR MANUFACTURING CONFERENCE AND WORKSHOP /Hyatt Regency Hotel, Cambridge, MA	Margaret M. Kindling - Deadline: 3/5/96 Tel: (202) 289-0440 Fax: (202) 289-0441
Nov. 11-15	1996 INTERNATIONAL PHOTOVOLTAIC SCIENCE & ENGINEERING CONFERENCE /SEAGAIA Convention Complex, Miyazaki, Japan	Akira Yamada - Deadline: 6/1/96 Tel: 81-3-5734-2698 Fax: 81-3-5734-2897
Nov. 25-26	1996 WORKSHOP ON HIGH PERFORMANCE ELECTRON DEVICES FOR MICROWAVE AND OPTOELECTRONIC APPLICATIONS /The University of Leeds, Weetwood Hall, Leeds, UK	Stavros Iezekiel - Deadline: Not Available Tel: 44-113-233-2088 Fax: 44-113-233-2032
Dec. 5-7	1996 IEEE SEMICONDUCTOR INTERFACE SPECIALISTS CONFERENCE /Catamaran Resort Hotel, San Diego, CA	Doug A. Buchanan - Deadline: Not Available Tel: (914) 945-3175 Fax: (914) 945-2141
Dec. 8-11	1996 IEEE INTERNATIONAL ELECTRON DEVICES MEETING /San Francisco Hilton & Towers Hotel, San Francisco, CA	Phyllis Mahoney - Deadline: Not Available Tel: (301) 527-0900 Fax: (301) 527-0994
Dec. 13-15	1996 INTERNATIONAL CONFERENCE ON MICROELECTRONICS /Nile Hilton Hotel, Cairo, Egypt	M.I. Elmasry - Deadline: 5/1/96 Tel: (519) 888-4567 Fax: (519) 746-5195
Dec. 15-21	1996 INTERNATIONAL CONFERENCE ON PHOTONICS /Indian Institute of Technology, Madras, India	J.P. Raina - Deadline: Not Available Tel: 91-44-235-1405 Fax: 91-44-235-0509
Dec. 16-18	1996 INTERNATIONAL ELECTRON DEVICES AND MATERIALS SYMPOSIUM /National Tsing Hua University, Hsinchu, Taiwan, ROC	Lih J. Chen - Deadline: Not Available Tel: 886-35-718328 Fax: 886-35-718328

Eastern Europe Library Project

The inspiration for the Eastern Europe Library project was a series of meetings held by Electron Devices Society officers and the EDS chapters in Eastern Europe. The chapters noted a problem facing them based on a lack of complete libraries of technical journals going back a reasonable time. At best, they had very limited coverage and at worst, none. In many ways, the situation since independence had gotten worse since government sponsored subscriptions had lapsed.

As a result of these inputs, the concept of an IEEE sponsored program to provide complete libraries of our technical journals took root. The plan was to provide ten years of back issues and three years of issues going forward. This would provide the needed technical history as well as seeding the future.

The RAB/TAB Transnational Committee sponsored the project with both RAB (Region 8) and TAB (technical societies) sharing responsibilities. Specifically, Region 8 would identify candidate libraries and provide microfiche readers (if necessary) and the technical societies would provide the funds to provide the microfiche copies of their journals. In this regard, this project represented an all too rare joint RAB/TAB undertaking.

Earlier this year, IEEE Region 8 identi-

fied 15 libraries in the newly independent countries and Russia to be the recipients of the journals. The selection criterion was that the libraries had regional significance and were open to everyone desiring access. In addition, 19 of the 35 Societies agreed to fund the microfiche production of their journals (Transactions at a minimum plus additional journals at the option of the Society.) Also, one Council and one Inter-Society journal also agreed to participate.

This past July, the ten years worth of

back issues of the various IEEE publications (1985-1994) were shipped to the 15 designated libraries. All libraries have now received their shipments. Letters have been received from a number of the libraries expressing sincere thanks and appreciation for the efforts of IEEE and its societies. The hope is that the libraries will be able to subsidize subscriptions for years beyond the 13 years funded by the societies.

— Michael S. Adler
General Electric CR & D
Schenectady, NY

The following are the list of libraries that have received the journals:

- Slovak Technical Library, Bratislava, Slovak Republic
- State Scientific Library Perulok Korolenko, Kharkov, Ukraine
- Yabuk Kolas Central Science Library, Minsk, Republic of Belarus
- National Library of Russia, St. Petersburg, Russia
- Universitatea "Politehnica" Bucuresti, Bucuresti, Romania
- Institute of Physics, Polish Academy of Sciences, Warsaw, Poland
- University of Veszprem, Schanherz Zoltan, Hungary
- Institute for Scientific Research in Telecommunications, Sofia, Bulgaria
- Lithuanian Technical Library, Vilnius, Lithuanian Republic
- Polytechnical University of Bucharest, Bucharest, Romania
- Technical University of Budapest, Budapest, Hungary
- ITF-School of Electrical Engineering, Belgrade, Yugoslavia
- Library of Kaunas University of Technology, Kaunas, Lithuania
- Russian Academy of Sciences, Library of the Siberian Branch, Novosibirsk, Russia
- Inst. of Radioengineering & Electronics, Russian Acad. of Sciences, Moscow, Russia



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