

## TABLE OF CONTENTS

Spotlight On: EDS Celebrated Member. . . . .	1
Upcoming Technical Meetings . . . . .	4
Society News . . . . .	12
Regional and Chapter News . . . . .	33
EDS Meetings Calendar . . . . .	40

## SPOTLIGHT ON: EDS CELEBRATED MEMBER



*EDL Founding Editor  
and Nobel Laureate,  
George Smith*

It goes without saying that the field of electron device engineering has revolutionized, and in many ways defines, 21st century life. As a part of EDS, each of us can take pride in our Society's members' accomplishments. We should draw from them inspiration to advance our field and to achieve more because it is not only their work,

but ours as well, that can help transform the world around us.

It is in this spirit that the EDS Celebrated Member program was created, with the inaugural Celebrated Member Award presented to *Electron Device Letters* founding editor and 2009 Nobel laureate for Physics, George E. Smith. The presentation was made by EDS President, Renuka Jindal at the Photovoltaic Specialists Conference held in Hawaii in June.

The audience in the packed reception hall was treated to George's recounting of how he

*(continued on page 14)*

## 2010 IEEE INTERNATIONAL ELECTRON DEVICES MEETING (IEDM)

56TH IEDM SLATED FOR SAN FRANCISCO,  
CALIFORNIA, DECEMBER 6-8, 2010



*San Francisco skyline, as seen from the bay. The lighted towers of the Financial District and northern waterfront gleam under a clear sky just after sunset*

© Phil Coblenz, courtesy of the San Francisco Convention & Visitors Bureau

The Electron Devices Society's annual technical conference, the IEEE International Electron Devices Meeting (IEDM), is the world's premier forum for leading-edge research into electronic, microelectronic, and nanoelectronic devices and processes. This year's IEDM will be held at the Hilton San Francisco Union Square, San Francisco, California, December 6-8, 2010. The IEDM will be preceded by a full day of short courses on Sunday, December 5th.

The IEDM draws presentations and attendees from industry, academia and governmental agencies worldwide. No other meeting presents as much leading work in so many different areas of microelectronics, encompassing both silicon and non-silicon device and process technology, molecular electronics, nanotechnology, optoelectronics and MEMS (microelectromechanical system) technology.

IEDM 2010 will feature increased participation in the fields of energy harvesting, power devices, biomedical devices and circuit-technology

*(continued on page 7)*

### YOUR COMMENTS SOLICITED

Your comments are most welcome. Please write directly to the Editor-in-Chief of the Newsletter at [ninoslav.stojadinovic@elfak.ni.ac.rs](mailto:ninoslav.stojadinovic@elfak.ni.ac.rs)

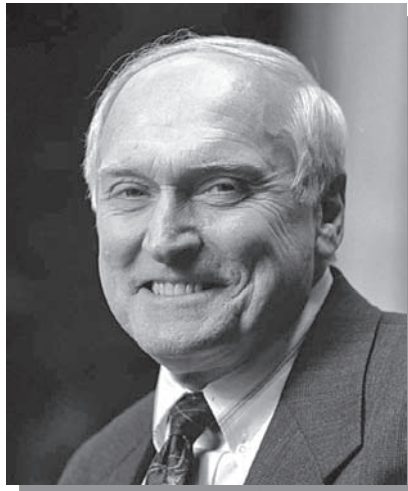
# JUNE 2010 AdCOM MEETING SUMMARY

STUTTGART, GERMANY

**Opening Remarks:** The meeting was called to order at 8:00 a.m. by Renuka Jindal, the new President of the Electron Devices Society. He thanked Joachim Burghartz for the excellent effort made by him and his team, Astrid Hamala and Juergen Ade of IMS CHIPS, in putting together an excellent venue and program for this meeting. Joachim was then asked to give a brief overview of Stuttgart—its art, architecture, sports, new buildings, auto industry, science and technology. There are 12 major companies in Baden-Wurtemberg, which is the third largest state in Germany, having an area comparable to that of the State of Maryland, 30,000,000 people. He commented that the program included a visit for AdCom members to the local Mercedes-Benz Museum, which turned out to be a marvelous event for AdCom members and their guests.

**President's Report:** Renuka then continued with several items.

- There have been several staff changes in the EDS office since the last AdCom meeting:
  - Jean Bae will be the EDS Conference Coordinator, overseeing the success (or lack thereof) of all the conferences supported by EDS. She comes with considerable conference experience. Thanks, Jean, for your continuing help and cheerful smile!
  - Kellie Gilbert will be the EDS Coordinator of Administrative & Executive Committees, handling the myriad of details, issues, problems, and firestorms that come her way, including trying to keep this secretary's reports accurate and honest! Welcome, Kellie.
  - Joyce Lombardini will continue to serve EDS as before, with primary responsibility to the Newsletter and Member Outreach, but she had to attend a



James L. Merz, EDS Secretary

- different meeting at this time. We look forward to seeing you at the next meeting.
- Fran Urbaniak has left the EDS office but continues to serve IEEE in another position. Congratulations Fran, but we will miss you!
  - Renuka gave an overview of the Mission and Vision statements for EDS, which can be summarized as: (1) EDS serves its members (2) EDS is a volunteer-led, volunteer driven society (3) EDS and its members should continue to think and act globally.
  - Renuka discussed initiatives such as the Photovoltaics Journal, EDS Express, changes to our existing publications, increased efficiency & effectiveness of our

conference activities, and the new EDS website.

- Other comments included the importance of attending AdCom meetings, so that we can have a quorum and do business, that there will be pressure in the future on conferences that lose money to either "shape up or ship out" (secretary's words), our new web site will be crucial for our continuing success, and that active participation of chapters and those members appointed to committees is very important. Finally he mentioned that the first "Celebrated Member" of EDS would be George Smith, winner of the most recent Nobel Prize.
- Questions were taken from the audience about: the PV Journal, available conference support, and the process of consultation with local chapters regarding members of societies who are not compliant or active.
- \*MOTION – to approve the list of new VP and Committee Member Appointments.  
*Approved unanimously.*

**President Elect's Report on the ExCom Meeting:** Paul Yu summarized the ExCom meeting that took place the day before. He felt that every decision we make must foster the

*(continued on page 8)*



**MODELING AND SIMULATION (MS):** Analytical, numerical, and statistical approaches to modeling electronic, optical and multiphysical devices, their isolation and interconnection. Topics include physical and compact models for devices and interconnects, modeling fabrication processes and equipment, simulation algorithms, process characterization, parameter extraction, early compact models for advanced technologies, performance evaluation, design for manufacturing, reliability and technology benchmarking methodology. Papers on the modeling of interactions between process, device and circuit technology will be given as well.

**PROCESS TECHNOLOGY (PT):** Front- and back-end process modules for fabrication of logic, memory, and 3D integrated circuits on silicon and non-silicon technologies. Topics related to front-end processing include substrate technologies, interface passivation, lithography, etching, isolation technologies, thin dielectrics, high dielectric constant materials and metal electrodes for transistors and MIM capacitors, shallow junctions, silicides, self-assembly techniques and new materials for memory and logic applications. Topics related to back-end processing include conductor systems, low dielectric constant materials, contact

and via processes, barrier materials, planarization, design considerations for multilevel interconnects, and advanced packaging.

**QUANTUM, POWER, AND COMPOUND SEMICONDUCTOR DEVICES (QPC):** Compound semiconductors (GaAs, InP, GaN, SiC, SiGe, Antimonides and their related alloys) with electronic and optoelectronic device applications, as well as discrete and integrated high power/current/voltage devices including those on silicon. Topics include FETs, HBTs, LEDs, lasers, external modulators, high power, RF, and microwave and millimeter wave devices. Also of special interest are ballistic and quantum effects, and optoelectronic integrated circuits, optical interconnects, photovoltaics, photonic bandgap structures and crystals, and integrated RF components including inductors, capacitors, and switches.

**SOLID STATE AND NANOELECTRONIC DEVICES (SSN):** Novel solid state and nanoelectronic devices, including carbon based devices, nanotubes, nanowires, and quantum dots; nanodevices for energy harvesting and storage, spintronic and other non-charge based devices; NEMS-based logic devices; and molecular devices. Also other areas of interest are new device characterization and performance evaluation methodologies.

### Evening Panel Discussions

On Tuesday evening, December 7th, beginning at 8:00 p.m., the IEDM will offer two evening panel discussions. One will focus on mitigating the power crunch in power-hungry ICs, while the other will explore heterogeneous device integration.

### IEDM Luncheon

The IEDM 2010 luncheon will be held on Tuesday, December 7th at 12:20 pm. Luncheon tickets are available through Advance Registration or on-site at a cost of \$55.00 to conference attendees only.

For registration and other information, visit the IEDM 2010 home page at <http://www.ieee-iedm.org/> or contact Conference Manager, Phyllis Mahoney, 19803 Laurel Valley Place, Montgomery Village, MD 20886, USA; telephone (301) 527-0900, ext. 2; fax (301) 527-0994; or email: [phyllism@widerkehr.com](mailto:phyllism@widerkehr.com). The IEDM committee members look forward to seeing you in December.

*John Suehle*  
2010 IEDM Publicity Chair  
NIST  
Gaithersburg, MD, USA

*Patrick Fay*  
2010 IEDM Publicity Vice-Chair  
University of Notre Dame  
Notre Dame, IN, USA

---

## JUNE 2010 AdCOM MEETING SUMMARY

*(continued from page 3)*

EDS Vision and Mission Statements that have been or soon will be ratified, and that the Treasurer's report is much more positive about our financial health than was expected (see Steve Parke's report). Other highlights include the fact that non-EDS members will be charged for meals at mini-colloquia, that the Distinguished Lecturers are being encouraged to put videos of their presentations on the web *with* voice, and that

we continue to lose members, especially within the U.S. We want to stay at or near 10,000 members, and need enhancement of membership recruiting through the growth and retention of chapters.

**Secretary's Report:** Jim Merz presented highlights from the December 2009 meeting. He summarized Hiroshi Iwai's report as Senior Past President's concerning his view of the remaining problems/tasks and

future challenges for EDS. Hiroshi suggested ways to attract members through conferences, and suggested more collaboration between regions and societies. Jim also reviewed the motions passed at that meeting, commenting on the unanimity of purpose of AdCom members since all motions passed unanimously, and he emphasized the importance of Renuka Jindal's goal of enhancing the Society's visibility.



**Treasurer's Report:** Steve Parke showed detailed charts of expenditures past and projected – the numbers are much better than had been expected. The operating margin is \$164K, with reserves of \$5.4 million, of which we can spend 3% on initiatives. The income from publications is \$982K, which is projected to be \$1,054K for 2010. Net income from conferences was \$1,447K. Newsletter layout expenses are increasing to the point where it has been decided to outsource this part of the production. Also, Expert Now short courses will be discontinued. Administrative costs have been low; kept to a minimum. New initiatives for 2011: the Chapter Partner Program will be dropped, saving \$20K, whereas the US chapter rejuvenation will cost \$10K. The Semiconductor Primer Program, Snap Kits activities, and the Women in Engineering Program (WIE) each cost \$5K. Web support will cost \$22K, the DL program was increased \$15K, and the mini-colloquia program \$15K. The motion to approve the preliminary 2011 budget, amended to increase the WIE by \$5K, was approved unanimously.

**Report from the Division 1 Director:** Hiroshi Iwai attended and reported on the recent TAB meeting. He first gave a very useful overview of the structure of the IEEE, showing the Division 1 societies and councils. Division 1 consists of societies active in devices and circuits, and includes more than EDS. He noted that the IEEE Nanotechnology Council (NANO) was founded by EDS and now has 20 societies supporting it. Membership of Division 1 is nearly 400,000, but is decreasing. Electronic membership is offered to 126 countries having their GDP <\$13,400. He noted that globalization throughout Division 1 is significant, and that 80% of member internet use comes from outside the U.S. Globalization of our Vice Presidents was considered to be important (i.e., almost all of our VPs are from the US), and he noted that most societies elect AdCom

members by a vote of the general membership. There was extensive discussion about two issues: open access, and declining membership vis-à-vis the membership fee structure. People are joining the IEEE, but not the societies, despite the low cost of society membership.

**Region 8 Vice Chair's Report (Europe, Africa, and the Middle East):** The report was given by Enrico Sangiorgi, on behalf of Ninoslav Stojadinovic who could not be present. Enrico reported that there had been three mini-colloquia this year, with many distinguished lectures, a total of 158 chapter meetings using \$17K subsidy requests. A German chapter was reactivated in March 2009, with Joachim Burghartz serving as interim chair. A workshop on SiC took place in Salerno with 80 participants. They are considering a proposal to support students attending research schools from poorer countries.

**Region 9 Vice Chair's Report (South America):** Jacobus Swart reviewed the 14 existing chapters in Region 9 and the newly proposed chapter for Argentina. Students have been encouraged to contribute and to attend all activities. It was decided that such funds should come from the region's funding and not require AdCom approval. Five new Distinguished Lecturers were approved, making the total number nine. Jacobus gave an overview of the Summer Course on Microfabrication held at UNICAMP and the funding needed. Steve Parke suggested that all SRC Chairs report budget items now for the 2011 year so to ensure adequate funding for next year. Jacobus voiced concern that Region 9 does not have a representative in AdCom.

**Report of the Vice President for Membership:** Albert Wang commented that the membership report is not so rosy. This year membership was down 1% (April to April), falling below 10,000 members for the first time. IEEE membership increased 2.3% to 397,000, while EDS numbers fell. Other societies are also down;



e.g. SSC was down 3.9%. Membership seems to be heavily tied to subject. For example, Power Electronics and Power/Energy have increased membership by 3.5% and 10.3%, respectively, while Communications is up a whopping 19.4% and Industrial Electronics is up 13.8%. IEEE society membership overall is up 3.4% to 347,683. There was considerable discussion about ideas for recruiting new members. The challenge is to stop the negative trend by providing more benefits. Albert ended with a list of ideas and incentives for 2010: develop a new membership committee, find new ways to reach out to corporations and universities, reactivate dead chapters, make currency conversion easy for membership fees, enhanced membership drives at flagship conferences, enhanced membership package for new members and life members, and attract affiliate members, which is less expensive than full IEEE membership. Steve Parke suggested that it would cost <\$5K to offer all students world wide free one-year membership; why shouldn't we do it? After much discussion it was decided to have a specific proposal developed and circulated to AdCom members.

**Report of the Vice President for Regions/Chapters:** Juin Liou told us that the number of chapters has grown from 120 in 2005 to 156 in 2010, and he expects at least 4 more. Regions 8 and 10 are both in the ~40 chapter category. There were a total of 22 MQs, 147 DLs, and 62 chapter-sponsored conferences and workshops. Seventy five chapters get subsidies. Region 10 dominates the

MQs and DLs, whereas Regions 8 and 10 dominate the number of conferences and subsidies. Juin's initiatives for the coming year include developing a chapter activity report form to measure success of chapters, surveying all chapters, developing a Chapter *Mentor* Program in place of the Chapter *Partner* Program, which is being discontinued. In the past, partners helped establish chapters, but Juin wants instead to add this function to the SRCs, who already know the geographical issues. Two specific motions were made and unanimously passed: Eliminate partners, add that function to SRC chairs and vice chairs.

- **Action item** – For December, each region should make a list of chapters needing assistance.
- **\*MOTION** –To abolish the Chapter Partner Program henceforth. *Approved unanimously.*
- **\*MOTION** –To explicitly add mentorship functions to the SRC Chair/Vice Chair portfolio for new chapters and for those needing guidance to be rejuvenated. *Approved unanimously.*

**Report of the Vice President for Educational Activities:** Meyya Meyyappan discussed ways to restructure the DL and MQ programs for maximum effectiveness. He felt that we need to obtain detailed reports about the success of these programs; in the past such reports have been used for monitoring activity, but not for evaluation to determine future requests. Laura will keep a data base on this. We also need a questionnaire to evaluate usefulness and clarity of presentation of the Distinguished Lectures. For example, would someone attending a MQ or DL now be interested in joining as a result of the presentations?

**Report of the Vice President for Publications:** Samar Saha reported that T-ED has moved to ScholarOne, and a new manual was developed. Overall the release went very smoothly. *Transactions on Device and Materials Reliability* will not be

moving to digital printing because it is not cost effective. TDMR has not been compliant with the editorial board, but work is in progress. TED-style page limit guidelines have been instituted. J-MEMS is projected to have a significant negative margin for 2011, and T-SCM has had a negative net budget for several years. We need to try and make these publications as attractive as possible for the future. It was noted that the Author Feedback Surveys have gathered positive feedback. IEDM Short Course DVDs have been made available to members at a reasonable cost. Samar proposed an IEEE EDS social networking site for professionals to network and share data – all with the goal of advancing ED research worldwide. Two new journals were proposed, (1) *EDS Express Journal*, which will have a dedicated section within EDL and (2) the *Journal of Photovoltaics*, with Tim Anderson as Editor-In-Chief.

- **\*MOTION** –To launch EDX as a new section of the EDL and not a self-standing publication. *Approved unanimously.*
- **\*MOTION** –To approve the IEEE EDS Journal of Photovoltaics. *Approved unanimously.*

**Report of the Vice President for Technical Activities:** Joachim Burghartz listed the 14 technical committees, as well as any newly appointed Chairs. He listed the functions of the Technical Committee as identification of new technical areas, meeting coordination, and publications involvement. New initiatives for 2010 include the revitalized involvement with conferences and meetings, and the mapping of current conferences to specific technical areas of interest. Among the potential initiatives for 2011 Joachim suggested that a new IEEE book on "Electron Devices" be developed and a review of emerging technical areas in the field of Electron Devices be carried out.

**Action Item** – The EDS Executive Office will work with Achim to devel-

op a plan for increasing the involvement of Technical Committees with our conferences.

**Report of the Vice President for Meetings:** Bin Zhao has taken over responsibilities for this area from Jon Candelaria – thanks, Jon, for all your hard work! Bin reported that several new conferences have been approved for sponsorship by EDS. It is felt that these conferences will in several cases increase EDS visibility in Europe, support local sections, and foster further collaborations and information exchange with other IEEE societies. He then reviewed the financial situation of the many conferences supported by EDS. Although there is a surplus of funding resulting from conferences, many are in the red each year (40% have negative surpluses), and several do not provide budget information or close their books for years after the conference is held. Much of the surplus is generated each year by the IEEE Photovoltaic Specialists Conference (PVSC). Bin identified six conferences on the "Exceptions List" for being delinquent or non-compliant and he identified actions to be taken for late conference closure, including a six-month warning, and putting further requests for co-sponsorship on hold after 13 months. On the other hand it was noted that successful conference organizers need to be recognized, and a method needs to be developed to do so. A Conference Performance Matrix will be used to determine whether or not to retract a conference. Conferences may be retracted due to technical field/interest changes over time, poor conference management or poor conference financial results.

**Report of the Chair of the Fellows Evaluation Committee:** Ade Adesida began his report by reminding us that only 3% of IEEE members are Fellows, which is the highest grade of membership. His committee, consisting of Ade (chair), Baccharani, Claeys, Groeseneken, Lunardi, and Momose, evaluated 45 Fellow

nominations on Saturday, June 5, 2010. There were 26 EDS evaluators (including committee members), and each did about 20 evaluations, so that most nominees were evaluated by 15 people. The Fellows elected by the committee will be announced shortly after the November IEEE Board of Directors meeting.

**Executive Director's Report:** Chris Jannuzzi first commented on the organizational structure of new and continuing EDS staff members listed at the beginning of this report. There are a total of eight staff members in addition to himself. Everyone was encouraged to contribute materials to Joyce for the EDS Newsletter, and he mentioned that the Officers want to move the Newsletter out of the IEEE production group to an outside printer to reduce costs. The new site will be under our control, because every time IEEE changes their web-

site it takes ours down. The website will be used to list all the advantages of joining EDS. We should be able to get into the password protected site early this summer to get suggestions about improving the website. New projects include: "Catch the Sun," a video on Photovoltaics, and a newly designed website.

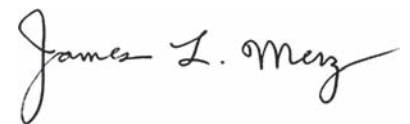
- **\*MOTION** – Approve moving the EDS Newsletter out of IEEE's production group.

*Approved unanimously.*

**Site Selection for the 2011 mid-year AdCom meeting:** Paul Yu announced that the next mid-year meeting will be held in Taipei, Taiwan on Saturday, May 28th and Sunday, May 29th (Memorial Day weekend). A motion to this effect was approved by the AdCom members. A tentative date for the 2012 meeting has been set for May 26–27. Potential locations are Moscow, Cairo, and South Africa.

**Closing Remarks and Adjournment:** Renuka Jindal reviewed issues from the President's Strategy meeting. The issues included: rejuvenating chapters, having better response to new members, connecting conferences to technical committees, member benefits, and expanding the active member pool. Renuka challenged everyone to give suggestions for increasing member benefits and attracting new members to EDS.

- **\*MOTION** – To approve new member appointments. Approved with one negative vote.
  - **\*MOTION** – To adjourn meeting. Approved unanimously.
- Respectfully submitted, Jim Merz,  
EDS Secretary



## Secretarial Reflections

**The Path Not Chosen:** The choice of George Smith as the first EDS "Celebrated Member" raised some interesting memories in the mind of this secretary. As I was finishing graduate school I interviewed at Bell Labs, Murray Hill, and was eventually offered two jobs. One was from a guy named George Smith who raced toy cars in his basement and who was working on a secret project having some-



*But some of our members seemed In no hurry to get there at all!*



*For example, Hiroshi Iwai came all the way from Japan in his favorite vehicle.*

thing to do with devices involving the coupling of charges. He had an opening in that project. The second was with D.G. Thomas who was discovering isoelectronic traps in compound semiconductors. I chose the latter. Who knows, had I chosen the former I might have been invited to



*Jim Merz came in his dream car, the Pope Mobile.*

carry George's suitcases to Stockholm last December. I bet that each of you can speculate on a path you chose not to follow.

**We all rush to attend the AdCom:** As usual, AdCom members come from near and far, using every kind of conveyance.





Professor Ninoslav Stojadinović addressing the audience at the Mini-Colloquium



Attendees at the mini-colloquium in Niš



Professor Meyya Meyyappan speaking on "Nanotechnology in Electronics, Photonics and Sensors"

Research Center, Moffett Field, CA, USA), "Drain Current Computation in Nanoscale nMOSFETs: Comparison of Transport Models" (Enrico Sangiorgi, University of Bologna, Cesena, Italy), "Nanoscaling of MOSFETs

and the Implementation of Schottky Barrier S/D Contacts" (Mikael Ostling, Royal Institute of Technology, Kista, Sweden), "Growth of Dielectric-Embedded Silicon Nanocrystals for Silicon Integrated Photonics" (Hei Wong, City University of Hong Kong, Kowloon, Hong Kong), "Quantum Mechanical Tunnelling in Nanoelectronic Circuits: Design of a Nanoelectronic Single-Electron RAM" (Paul Isaac Hagouel, Optelec, Thessaloniki, Greece), and "Application of Non-equilibrium Plasmas in Top-Down and Bottom-Up Nanotechnologies and Biomedicine" (Zoran Petrović, Institute of Physics, Belgrade, Serbia). The event included a coffee break, lunch and welcome cocktail.

The MQ was very well received by the audience of about 50 people, in terms of organization, technical quality of the contributions and opportunities for discussion. All presentations were interactive with active participation by the attendees. The attendance was mainly MIEL 2010 Conference participants and local students and professors. In particular, the students enjoyed the possibility to interact with the EDS Distinguished Lecturers very much. Following the MIEL 2010 Conference Opening Session and Welcome Cocktail, all the lecturers participated in a meeting with Mr. Božidar Djelić, Minister for Science and Technological Development of the Republic of Serbia, which was aimed to discuss the strategy of scientific and technological development of the Republic of Serbia in the next five-year period. This meeting actually was held in extension of the talk given by Mr. Djelić during the Opening Session.

*Ninoslav D. Stojadinović  
ED/SSC Serbia and Montenegro  
Chapter  
University of Niš  
Niš, Serbia*

## REPORT ON THE IEEE EDS MINI-COLLOQUIUM HELD AT THE INSTITUTE FOR MICROELECTRONICS STUTTGART (IMS CHIPS)

On June 7th, the IEEE ED Germany Chapter hosted a mini-colloquium at the Institute for Microelectronics Stuttgart (IMS CHIPS) in Stuttgart, Germany. The colloquium was focused on issues of More Moore and Moore than Moore, which are of particular interest to the German and European industry and academia. We were very fortunate to have

excellent tutorial talks from EDS Distinguished Lecturers (DL) and leaders from the nearby companies Robert Bosch GmbH and Zeiss SMT, as well as from the University of Stuttgart.

We were very glad that the attendance was high and that participants also from Region 8 beyond Germany could be attracted, i.e. from Bulgaria, Israel, Italy, Poland, Russia, South

Africa, Sweden, and Ukraine. Even some EDS members from outside Region 8 were joining in, after having attended the EDS ExCom and AdCom meetings on June 5 and 6 at the Comundo Conference Hotel in Stuttgart.

The colloquium started with a welcome by Prof. Joachim Burghartz, host and ad-interim chair of the German chapter, followed by a brief



overview of the research activities at the Institute for Microelectronics Stuttgart (IMS CHIPS).

In the morning, there were two blocks of More Moore topics with excellent tutorials by Prof. Hiroshi Iwai (Tokyo Institute of Technology, Tokyo, Japan), Winfried Kaiser (Fellow at Zeiss SMT, Oberkochen, Germany), Dr. Samar Saha (SiITerra Inc., San Jose, USA), Prof. Renuka Jindal (University of Louisiana, Lafayette, USA), Prof. Albert Wang (University of California, Riverside, USA), Prof. Juin Liou (University of Central Florida, Orlando, USA) and Prof. Cor Claeys, Imec, Leuven, Belgium). Of

special interest to the EDS members was the presentation by Winfried Kaiser who reported on the general European effort in EUV lithography, and the development program of ASML and Zeiss SMT in particular.

The afternoon belonged to the emerging More than Moore technologies and applications. This section was opened by Dr. Jiri Marek (Robert Bosch GmbH, Reutlingen, Germany) who gave an interesting overview of the sensor and micro system development and products at Bosch. Other talks were from Prof. Mikael Ostling (KTH, Stockholm, Sweden), Prof. Manfred Berroth (University of

Stuttgart, Stuttgart, Germany), Dr. Bin Zhao (Freescale Inc., Irvine, USA), Prof. Jacobus Swart (CTI, Campinas, Brasil) and Prof. Paul Yu (University of California, San Diego, USA).

Over all, there were ten full hours of tutorial talks and discussions after the talks and during the breaks. It was a hard but, considering the throughout positive feedback, rewarding day for all participants and speakers.

*Joachim N. Burghartz  
EDS Vice President of  
Technical Activities  
IMS Chips  
Stuttgart, Germany*

## **ANNUAL DVD UPDATE PACKAGE AVAILABLE TO EDS MEMBERS**

The 2009 Annual DVD update package was distributed in April 2010. It includes all issues from 2004 through 2009 of *Electron Device Letters* (EDL) and *Transactions on Electron Devices* (T-ED), as well as the proceedings of the IEEE International Electron Devices Meeting (IEDM) over the same period. This

update is fully compatible with the EDS Archival Collection DVD and the two products work together seamlessly providing extensive search capabilities to all issues of EDL, T-ED and all technical digests of the IEDM. The DVDs include comprehensive author, subject and publications indices, abstract pages

and all articles are in searchable PDF format.

The 2009 EDS DVD Update Package is available exclusively to EDS members for a bargain price of US \$40 (students \$20) through the IEEE online store <http://shop.ieee.org/store/>, or download an order form from the EDS website at, <http://www.>



## EDS MEMBERSHIP FEE SUBSIDY PROGRAM (MFSP)



*Albert Wang*  
EDS Vice-President  
of Membership

The EDS Membership Fee Subsidy Program (MFSP) is a chapter program that enables chapters in low income geographical areas to increase their membership. This program is also used to help launch

new IEEE EDS chapters.

The MFSP guidelines are as follows:

IEEE policy currently allows a 50% discount on IEEE dues and one society membership for any individual whose annual salary is less than US\$13,400. This offering is referred to as the Minimum Income Special Considerations Option. The Electron Devices Society currently has a program for its chapters called the Membership Fee Subsidy Program

(MFSP), which both complements the IEEE Minimum Income offering and provides a significant additional benefit for qualified individuals.

With the EDS Membership Fee Subsidy Program, EDS will pay 50% of the IEEE and EDS dues for any new/existing member or student qualifying for the Minimum Income option. EDS will cover up to twelve (12) chapter members/students per year. Each member/student can only be covered 'one time' under this program and four of the twelve members/students each year must be new IEEE/EDS members/students. The individuals can be applying for either regular membership or student membership. This program is also available to all unemployed members. Although the IEEE Minimum Income option allows individuals to purchase publication subscriptions for one-society at a 50% reduced rate, the EDS MFSP

does not cover the payment of publication subscriptions.

If a chapter has individuals who qualify for the reduced IEEE Minimum Income offering and the EDS MFSP, all the Chapter Chair needs to do is obtain the IEEE/EDS membership application forms or IEEE Renewal Bills from all individuals participating in the program (maximum 12) and submit them to the EDS Executive Office. Once received, the application forms will be coded with a special account number and submitted to the pertinent IEEE department for processing.

For any questions concerning the program, please contact the Joyce Lombardini in the EDS Executive Office ([j.lombardini@ieee.org](mailto:j.lombardini@ieee.org)).

*Albert Wang*  
EDS Vice-President of Membership  
University of California  
Riverside, CA, USA

## EDS REGION 8 CHAPTERS MEETING SUMMARY

The 2010 EDS Region 8 Chapters Meeting was held at the Commundo Tagungshotel Stuttgart, conveniently located in a suburban area of Stuttgart, Germany, and on the premises of the Stuttgart University Campus, Saturday, June 5th, in conjunction with the EDS Administrative Committee (AdCom) Meeting. This year's meeting was attended by approximately 35 EDS members and more than a dozen chapters representing the entire Region 8 area. The previous EDS Region 8 Chapters Meeting was held in Athens, Greece, in 2008.

The meeting was hosted by EDS President, Renuka Jindal, who opened the meeting with a welcome to the participants.

In his opening remarks, President Jindal raised some fundamental organizational issues such as how critical is EDS funding to sustain and boost chapter activities and what can EDS do to better support chapters. Also the EDS President tackled the issue of a better leverage of the chapters to attract more members and engage current ones. Finally the EDS President announced the coming updating of the EDS website design. This will give Chapters a unique opportunity to play an integral role in terms of keeping an updated list of events being scheduled and even directly update their content or provide input to EDS staff for updating the content. The questions

and issues raised by Renuka ignited a lively and constructive discussion among the attendees.

The meeting continued with a report by Juin Liou, EDS Vice-President of Regions/Chapters who spoke on the history of EDS chapters, chapter subsidies and new chapters.

Fifteen chapters presented reports at the meeting, which was divided into two sessions with a half hour break for refreshments and socializing. During the first half of the meeting, Chapters from Western Europe, the United Kingdom, the Middle East, Africa and Eastern Europe presented reports given by the following representatives: Joachin Burghartz (Germany Chapter) who



*Attendees of the 2010 EDS Region 8 Chapters Meeting, Stuttgart, Germany*

reported about the newly rejuvenated Germany Chapter which has been very active in its first year of "new life", Olivier Bonnaud (France Chapter), Ivan Buliev (Bulgaria, Varna Chapter), who reported about a very successful two weeks School of CAD in Electronics in Varna, Ali A. Rezazadeh (UKRI Chapter) reporting about the very active Student Branch in Manchester and on the UKRI Mini-Colloquia held by the UKRI Chapter on 5/1/09 at the University College, Dublin, Ireland, Gady Golan (Israel), Monuko DuPlessis (South Africa), Andrzej Napieralski (Poland) reporting also about the Lublin Mini-Colloquia held by the Poland Chapter on 5/7-8/09 in Lublin, Poland.

The second half of the meeting commenced after the refreshment break and was well represented by chapters from the Eastern Europe and Former Soviet Union countries. Chapter representatives Tamar Gogua (Republic of Georgia), Goce L. Arsov (Republic of Macedonia), Elena Skorodumova (Moscow Chapter, Russia), Kostyantyn V. Ilyenko (Karkiv Chapter, East Ukraine), Vladimir Shashkin (Nizhny Novgorod Chapter, Russia), Alexander V. Gridchin (Novosibirsk Chapter, Siberia, Russia), Oleg V. Stukach (Tomsk



*A Fountain at Schlossplatz, Stuttgart, Germany*

Chapter, Siberia, Russia), and Yuriy Prokopenko (Kiev Chapter, Central Ukraine) shared their experience and Chapter activities with a very interested and active audience. In addition to reports on chapter activities, most speakers show pictures and facts about their homelands, highlighting the diverse cultures of the region.

Following the chapter reports, an open forum discussion was led

by EDS President, Renuka Jindal, continuing the discussion that opened the meeting. Issues like the need for more communication between IEEE and the chapters to better understand IEEE and EDS member benefits and the request for increased funding to chapters who want the assistance were tackled. Many suggestions came on the ways the internet could be used to create new member benefits, increase student membership, advertise existing programs and expand the audience for EDS Distinguished Lecturers and conference short courses.

Thanks was given to Joachim Burghartz, ED Germany Chapter Chair, in recognition for his outstanding assistance to the EDS Executive Office, especially for finding the perfect location for the meeting and being the liaison for visa processing for our meeting attendees. The success of the EDS meetings would not have been possible without his dedicated, enthusiastic service.

*Enrico Sangiorgi  
EDS Vice-Chair SRC-EAM  
University of Bologna  
Cesena, Italy*