

The ESD Association newsletter, published for everyone with an interest in the understanding and control of electrostatic discharge.

News Bits

Education Schedule Posted

Be sure to review the 2007 Education Schedule for the many opportunities available. See page 3 for more information.

IEW Update

New information regarding the IEW can be found on page 5.

Program Manager Certification Results

Seven members achieved Program Manager Certification. See page 6 for details.

Symposium Papers Deadline Fast Approaching

The deadline to submit Papers for the Symposium is January 12. See page 10 for additional information about the Papers deadline.

Research Grant

ESDA provides research grant. See page 11 for more information.

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THRESHOLD™

Volume 23, No. 1

January/February 2007

BoD Meets to Review 2006; Plan 2007

Numerous important topics were discussed among 17 members of the Board of Directors (BoD) when they met at ESDA Headquarters in Rome, New York, for their Annual Board Meeting.

“Our team shared information from our various events in 2006, such as an incredibly successful Symposium, and mapped out an aggressive education schedule and plan of action for next year,” said Kay Adams, Tech Wear, Inc., president of ESDA.

When reviewing highlights from 2006, the BoD declared the 2006 EOS/ESD Symposium in Tucson, Arizona, a success. General Chair, Carl Newberg, of Microstat Labs, stated that based on survey results and verbal feedback from both vendors and attendees, Symposium 2006 was a resounding success.

During their formal meeting, board members voted to approve a resolution to have ESD Association’s Symposium technical papers posted on IEEExplore. “I believe this was a very important action for the Board to take,” said Adams.

Some other actions of the board included the appointments of several new Business Unit Managers. More information is

available on page 2 of this newsletter.

In addition to formal meetings with the entire board, the group also broke out into various smaller groups. These smaller groups focused on items such as Standards, Tutorials, Workshops, Symposium, Marketing and Communications, and Human Resources. Various detailed topics were discussed during these break-out sessions, and many of the plans for 2007 were developed at these sessions.

“This year can be very successful for our organization,” said Lisa Pimpinella, Operations Manager at Headquarters. “With the various opportunities we plan to explore with regard to education and Symposium, our potential for growth is unlimited.”

Overall, there was an excitement about the many ways in which the organization can grow, and about the new leadership positions.

The BoD will meet again during February in Anaheim, California.▲



Happy New Year and best wishes from the ESDA Board of Directors.

From the President

ESDA Goals & Plans for 2007



Kay Adams

We recently held the Board of Directors meeting at ESDA Headquarters in Rome, NY. The first course of business was to review the 2006 highlights and our year-to-date financial status. As was reported at the Annual Meeting in September,

the ESDA has had a very good year financially.

Some goals for the new year that were discussed include: expansion of the ESD On Campus Program, increasing educational opportunities for our members (including increasing online opportunities), offering Device Design Certification, learning what opportunities exist for standards

expansion, increasing member participation, and expanding our Symposium program.

There are currently 10 confirmed ESD On Campus visits during first quarter of 2007; our goal is to provide up to 40 visits worldwide this year. In addition to providing vital information to students, this is a wonderful way of meeting our organization's goal of becoming known as a resource in electrostatic discharge control.

We plan to increase our educational offerings to members in many ways. We are co-sponsoring the first annual International ESD Workshop in May. In addition we plan to offer one online course per quarter for 2007. These courses provide an efficient way of delivering information and teaching people about different components of static control. Planning is underway for course topics. In addition, we plan to offer the first Device Design Professional Certification exam in September of this year.

Under the leadership of our new Standards Business Unit Manager, Tim Jarrett, we are exploring future growth opportunities.

Human Resources hopes to increase member participation by inviting any interested and capable individuals who have an interest in working with leadership to help the organization develop, to please contact us at info@esda.org. The door is open to people who are willing and able to participate at the management level.

We plan to expand our Symposium program by offering additional tutorials and workshops. We plan to add two parallel sessions on Sunday, which will increase the parallel sessions from three to five, and we want to add an additional session on Monday. Discussions are also underway regarding additional evening workshops at the Symposium.

The three-day BoD meeting was productive and we all left feeling very encouraged about the success of our programs planned for 2007.

I look forward to serving the members of the ESDA through a successful 2007. ▲

Association News

ESDA Announces New Leaders

Association leaders for 2007 were announced during the recent Board of Directors meeting, held in December of 2006.

Tim Jarrett, of Boston Scientific, has been appointed as the new Business Unit Manager (BUM) for the Standards Business Unit (BU). Tim has appointed Fred Tenzer, of Desco Industries, to head up the Technical and Administrative Support (TAS) team. There have been discussions regarding the expansion of the Standards BU, by inviting individuals and groups who have electrostatic issues, and would like to help, to bring those issues to the ESDA for consideration.

Donn Bellmore, of Universal Instruments, is the Symposium BUM and Symposium General Chair for 2007, and is heading up an experienced and stellar team to ensure that this year's EOS/ESD Symposium in Anaheim, California, will be one of the

Association's most successful symposiums ever. Carl Newberg, of Microstat Labs, is heading up the tutorial program, with plans to expand this part of Symposium.

Michele McSwain, of TW Clean, has been named the new Education BUM. Arnold Steinman, of MKS, Ion Systems, has accepted the position as the Human Resource BUM, John Kinnear, of IBM, will be the Facility Certification BUM, and Craig Zander, of Restronics Company, Inc., will continue as the leader of the Marketing and Communication Business Unit.

Executive Committee Members:

Kay Adams, President
Ed Weggeland, President Emeritus
Dave Swenson, Sr. Vice President
Dale Parkin, Vice President
Michele McSwain, Secretary

Donn Bellmore, Treasurer
Lisa Pimpinella, Operations Manager

Business Unit Managers:

Donn Bellmore, Symposium
Tim Jarrett, Standards
John Kinnear, Facility Certification
Michele McSwain, Education
Arnie Steinman, Human Resources
Craig Zander, Marketing & Communications

A complete list of the ESD Association's Board of Directors is available at www.esda.org/staff_board.html. A biography of each member is included on the page. ▲



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Education

ESDA Announces 2007 Education Schedule

The Electrostatic Discharge Association (ESDA) will offer numerous professional education classes this year, providing individuals many opportunities to complete coursework necessary to earn ESD Device Design or Program Manager Certification.

"This year's slate of classes cover a broad spectrum of areas within the EOS/ESD field," said David Swenson, senior vice president of the association. "Our instructors are experts in their fields, and will provide attendees with current information pertinent to their professional concerns."

Courses will be available in North America, Europe and Asia, and include topics such as ANSI/ESD S20.20 ESD Program Development, How To's of In-Plant ESD Auditing and Evaluation Measurements, Cleanroom Considerations for the Program Manager, System Level ESD/EMI: Testing to IEC and Other Standards, and much more. Most of the classes offered are requirements for ESD Certified Professional Program Manager or ESD Certified Professional Device/Design certification.

Visit www.esda.org for more information about the courses available and their instructors. Registration is already underway for classes offered during February in Anaheim, California, and the courses offered in the Philippines. Visitors may download a registration form for those classes at the ESDA's website.

More information regarding the February classes can be found on page 3 of this newsletter, and information regarding the Philippines course can be found on page 4 of this newsletter.▲

Course Topic	Location	Date
EOS Failure Models and Mechanisms	Anaheim, CA	February 8
CDM Design and Characterization	Anaheim, CA	February 8
TLP Measurement: Parametric Analyzer for ESD On-Chip Protection	Anaheim, CA	February 8
System Level ESD/EMI: Testing to IEC and Other Standards	Philippines	March 7
Device Technology and FA Overview	Philippines	March 7
EOS/ESD Failure Models and Mechanisms	Philippines	March 8
Electrostatic Calculations for the ESD Engineer	Philippines	March 8
ANSI/ESD S20.20 ESD Program Development	Austin, TX	April 17 & 18
ESD On-Chip Protection in Advanced Technologies	Austin, TX	April 17
SPICE-Based ESD Protection Design Utilizing Diodes and Active MOSFET Rail Clamp Circuits	Austin, TX	April 18
Device Testing - IC Component Level: HBM, CDM, MM and TLP	Austin, TX	April 18
ESD Device/Design Seminar	Rome, NY	Apr. 30 & May 1
How To's of In Plant ESD Auditing and Evaluation Measurements	Bloomington, MN	May 9
Cleanroom Considerations for the Program Manager	Bloomington, MN	May 10
Air Ionization: Issues and Answers	Bloomington, MN	May 10
International Electrostatic Discharge Workshop	Lake Tahoe, CA	May 14-17
RF On-Chip ESD Protection Design and Test	Tyngsboro, MA	May 22
Troubleshooting On-Chip ESD Failures	Tyngsboro, MA	May 22
ESD Basics for the Program Manager	Tyngsboro, MA	May 23
Packaging Principles for the Program Manager	Tyngsboro, MA	May 24
System Level ESD/EMI: Testing to IEC and Other Standards	Tyngsboro, MA	May 24
ANSI/ESD S20.20 ESD Program Development	Rome, NY	June 5 & 6
ESD Device/Design Seminar	Munich, Germany	June 18 & 19
ESD Standards Overview for the Program Manager	Austin, TX	June 21
Device Technology and FA Overview	Austin, TX	June 21

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Certification

Certification Classes to be Offered in Anaheim

The Electrostatic Discharge Association (ESDA) will hold three Device Design courses in Anaheim, California, at the Disneyland Hotel on February 8, 2007.

- EOS Failure Models and Mechanisms, taught by Steve Voldman, Ph.D., is offered from 8:30 a.m. to noon;
- CDM Design and Characterization, taught by Michael Chaine, BSEE, is offered from 1:00 p.m. – 2:30 p.m.; and
- TLP Measurement: Parametric Analyzer for ESD On-Chip Protection, taught by Robert Ashton, is offered from 3:00 p.m. – 4:30 p.m.

These courses are required for ESDA Device Design Certification.

The EOS/ESD Failure Models and Mechanisms tutorial will focus on CMOS, RF CMOS, SOI and Bipolar technologies. This course is intended to help those tasked with testing, designing, and understanding fail-

ure mechanisms of semiconductor devices. CDM Design and Characterization covers the basic concepts and ideas required to design-in for Charge Device Model ESD tests. Attendees of the TLP Measurement: Parametric Analyzer for ESD On-Chip Protection tutorial will learn how to use TLP to understand the properties of integrated circuits and circuit elements in the time and current levels characteristic of ESD events.

Detailed information regarding each tutorial offered, information about the instructors, tutorial costs, and a downloadable registration form are available at www.esda.org/education.html. ▲

Certification

Device Design Courses Scheduled in Philippines

The Electrostatic Discharge Association (ESDA), in conjunction with the Philippines local ESD Association Chapter and ASEMPEP ESD Council will offer a two-day seminar in Alabang, Muntinlupa City Philippines March 7 & 8, 2007.

The seminar is geared toward quality control professionals, ESD Coordinators, facilities managers, Program Managers, certifying bodies, and device design engineers. Classes offered include System Level ESD/EMI: Testing to IEC and Other Standards, Device Technology and FA Overview, and Electrostatic Calculations for the ESD Engineer, all taught by Leo G. Henry, Ph.D., and EOS/ESD Failure Models and Mechanisms, taught by Steven Voldman, Ph.D.

System Level ESD/EMI: Testing to

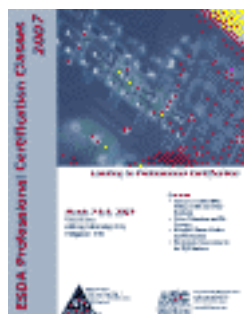
IEC and Other Standards is intended to help those tasked with testing products to

IEC and other system level ESD standards by providing detailed information on IEC 61000-4-2, the most widely used standard, and highlighting the harmonization and differences among IEC, ANSI, Telcordia, and some automotive ESD standards. Device Technology and FA Overview is designed to give a broad overview of ESD device technology, the ways circuit designers protect against ESD,

and the failure analysis techniques that are likely to be encountered in reports about ESD failures. Electrostatic Calculations for the ESD Engineer focuses on the basic calculations and techniques of use to the ESD engineer. The content is at the sophomore

physics or electrical engineering level, set in the content of electrostatic discharge and its effects. EOS/ESD Failure Models and Mechanisms will cover the fundamental failure mechanisms of electrical overstress/electrostatic discharge (EOS/ESD) and the physics behind them.

Detailed information regarding each tutorial offered, information about the instructors, tutorial costs, and a downloadable registration form are available at www.esda.org/education.html. ▲



Leo G. Henry, Ph.D.



Steven Voldman, Ph.D.

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Education

Register Now for the International ESD Workshop

The first annual International Electrostatic Discharge Workshop (IEW) takes place May 14 - 17, 2007, at Lake Tahoe, California, and registration is underway. The workshop provides a unique environment for envisioning, developing, and sharing ESD design and test technology for present and future semiconductor applications. Attendees will closely interact with their peers at technical sessions, moderated discussion groups, open poster sessions, seminars and special interest groups. All workshop activities take place in a relaxed and rustic setting that promotes



Stanford Sierra Conference Center

an atmosphere of interactive learning and helpful discussions. Attendees should leave the workshop intellectually stimulated and refreshed.

The IEW will focus on robust design and test of ESD protection for state-of-the-art integrated circuits as well as advanced semiconductor on chip (SOC) and system in package (SIP) applications. Through technical presentations, seminars, un-referreed poster sessions, discussion groups and special interest groups, a unique and informal environment is provided for understanding and sharing ESD technology. The IEW is closely aligned with the EOS/ESD Symposium for collaborative activities. In addition, the IEW will be very similar in format, and held at the same location as the IEEE Integrated International Reliability Workshop.

Registration

The advance registration fee for the 2007 International ESD Workshop is \$1,100 for ESDA and IEEE members and \$1,200 for non-members. After April 1, 2007, the registration fee will increase to \$1,200 for ESDA and IEEE members and \$1,300 for non-members.

The registration fee includes full workshop attendance and handout materials, seminar attendance, three nights lodging at the Stanford Sierra Camp, nine meals (dinner Monday through lunch Thursday) as well as morning and afternoon snacks and drinks.

Lodging & Facilities

Nestled throughout the pines and cedars along the shoreline of Fallen Leaf

Continued on page 11

Standards

February 2007 Meeting Schedule

Anaheim, California, Disneyland® Hotel

Thursday, February 8

TAS	8:00 - 5:00
EOS/ESD Failure Models and Mechanisms	8:30 - noon
CDM Design and Characterization	1:00 - 2:30
TLP Measurement: Parametric Analyzer for ESD On-Chip Protection	3:00 - 4:30

Friday, February 9

TAS	8:00 - 5:00
WG-3, Ionization	8:00 - noon
WG-5, Device Testing	8:00 - 5:00
WG-10, Handlers	1:00 - 5:00
Education	8:00 - 5:00
Device WG Chairs	5:00 - 6:00
ExCom/AAC	6:00 - 9:00

Saturday, February 10

TAS	8:00 - 5:00
WG-53, Compliance Verification	8:00 - noon
WG-5, Device Testing	8:00 - 5:00
WG-11, Packaging	1:00 - 3:00
Factory WG Chairs	3:00 - 5:00
WG-2, Garments	8:00 - noon
WG Chair Meeting	5:30 - 6:30
ESDA Mixer - All Invited	6:30 - 7:30

Sunday, February 11

TAS	8:00 - 5:00
WG-7, Flooring	8:00 - noon
WG-14, ESD Simulators	8:00 - noon
WG-15, Gloves	8:00 - noon
MAR/STDCOM	1:00 - 4:00
Nominations	4:00 - 5:00

Monday, February 12

Human Resources	10:00 - noon
Technical Program	8:00 - noon
Steering	1:00 - 5:00

Tuesday, February 13

BoD	8:00 - 5:00
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The IEW is sponsored by the ESD Association in cooperation with the IEEE. Technically co-sponsored by the Electron Devices Society and the Reliability Society.



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Certification

Program Manager Certification Results

The second Certified Professional-Program Manager exam was held on Friday, September 15, at the 2006 EOS/ESD Symposium in Tucson, Arizona. The program was designed by the ESD Association, and the test is developed and graded by the Program Manager Certification Council. After successfully completing the required elements, the ESD Association is pleased to confer Professional Certification status (for ESD Program Managers) to the following individuals:

Dale Fuller, Seagate Technology
Brad Klepsa, Advanced Telemetry Systems, Inc.
Marcus Koh, Everfeed Technology Pte. Ltd.
Jim Krzmarzick, SAIC-NASA
Jeff Salisbury, Seagate Technology
Keith Smith, Honeywell
Luis Velazquez, Curtis Instruments (Puerto Rico), Inc.

The impact of the ESD Control Program Standard ANSI/ESD S20.20-1999; Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electronically Initiated Explosive Devices) on the global industry has been extraordinary. The ESD Association's Board of Directors recognizes the need to offer a certification program for individuals that are involved in designing, implementing, managing and auditing ESD control programs in their facilities. The ESD Certified Professional-Program Manager certification program was announced in 2003 to serve that purpose. In addition, the needs of the technical community for certification of various technical specialists are apparent.

Last year, six members achieved ESDA Program Manager Certification.

The following courses are offered every year at Symposium and at other times throughout the year. If an attendee completed these courses in 2003 or after, they may be applied to the Program Manager Certification.

Please watch the ESD Association

website at www.esda.org for announcements regarding these exciting and important new offerings.

Program Manager Certification Seminars and Tutorials

- ESD Program Development and Assessment (ANSI/ESD S20.20 Seminar) (two-day course)
- ESD Basics for the Program Manager (full-day course)
- Air Ionization: Issues and Answers (half-day course)
- How To's of In-Plant ESD Auditing and Evaluation Measurements (full-day course)
- Packaging Principles for the Program Manager (half-day course)
- ESD Standards Overview for the Program Manager (half-day course)
- Device Technology and FA Overview (half-day course)
- Electrostatic Calculations for the ESD Engineer (half-day course)
- Cleanrooms Considerations for the Program Manager (half-day course)
- System Level ESD/EMI: Testing to IEC and Other Standards (half-day course)

Visit www.esda.org/education.html to download a copy of the 2007 Education Schedule, which provides course dates and locations for the first half of the year. In addition, registration is currently underway for classes offered in February. A registration form can be downloaded from the website.

To obtain additional information about professional certification at the 2007 EOS/ESD Symposium, please contact the ESD Association: Phone: 315-339-6937, Fax 315-339-6793, Email: info@esda.org, www.esda.org. ▲

Association News

What's New on the Website

Check out ESDA's website for the latest in education information.

"We utilize the website to quickly inform members of educational opportunities so that they can make plans to attend those tutorials of interest to them," said Lisa Pimpinella, Operations Manager.

Education

The 2007 Education Schedule was recently posted, and contains tutorials and seminars that will be available now through June. Additional classes for the second half of the year will be added, so be sure to visit www.esda.org often and view the Education Schedule.

Also on the web, visitors will find a downloadable flier and registration form for the February tutorials taking place in Anaheim, CA.

The road to professional certification continues with tutorials offered in the Philippines during March. The brochure and registration form for these tutorials can be found on the web, and downloaded as well.

Also new on the web are links to these tutorials. Visitors can click on the image of the Education Schedule, February Tutorial or March Tutorial, and be directly linked to the Education page on the site.

Volunteer Spotlight

Be sure take a look at the Volunteer Spotlight, updated this month. Our highlighted volunteer is Maciej Noras, Ph.D. ▲

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ESD On Campus

Notes from the Students of Shanghai's Jiao Tong University - Shortening the distance across the Pacific Ocean with a little "Chin-glish"

By Steven Voldman, Ph.D.

A little Chinese – English, known as Chinglish, goes a long way. To quote Shanghai's Jiao Tong student LiuBo, poking fun at my ESD on Campus lecture style, stated something quite amazing... "Your "Chinglish" made us laugh all the time and shortened "the distance of the Pacific Ocean."

Whereas the West learned gunpowder and fireworks from the East, now the East is learning about ESD and nano-structure explosions from the West. This year, we had the opportunity to visit Shanghai, China, and bring the exciting future of ESD in semiconductor devices. During October of 2006, an ESD on Campus lecture was given on the JiaoTong University's new campus. The original Shanghai Jiao Tong University campus is in the center of the great city of Shanghai. To allow major expansion of the university, Jiao Tong University built a large brand new campus approximately 20 to 30 minutes from downtown Shanghai. The new massive campus has a blend of modern campus buildings and ancient traditional gates. In ancient cities, there were traditionally a moat and four gates oriented North, South, East and West - - on this campus, the blending of the ancient campus gates with the modernistic buildings and complexes looks at the future, but keeps a piece of tradition. On this modern campus, a city for 40,000 students was built - a campus in tens of square miles, cranes and buildings are rising in this fourteen-gate modern Chinese campus...all at

once. It is unbelievable.

The host of the visit was Professor Mao Zhi Gang of the Electrical Engineering department. I provided a lecture to over 60 students on "Electrostatic Discharge Protection in the Nano-Technology Era." At



Dr. Voldman with students he lectured from Jiao Tong University

first the classroom was empty... within one minute, the classroom was full. In the photograph above, there were so many students, we did not fit them all into the photograph!

Marco Polo was filled with discoveries about life in China when he entered this region in the 13th century. What are we discovering? First, many students like to see an "American Style" ESD lecturer - they are not used to the way we teach. Second, many like an American who at least makes a good attempt at their language, forming what is known as "Chinglish." Third, another surprise, there are few people who eat or

lecture with their left hand. At meals, they were surprised about left-handed people. I thought the whole world eats chopsticks with their left hand! So, we needed to teach them "Zou shou - Yo Noi" (Left Hand - Right Brain). As a left-handed Jewish American, there were many interests in our cultural differences and commonalities (e.g., "Zhong guo Hua" (Chinese culture) and "Yo-Tai Hua" (Jewish culture). And lastly, they are learning that ESD can be an interesting research and development opportunity from both technical interest, employment and of course, economics. The enthusiasm is quite evident. Here are some of the letters from the students I lectured:

Dear Dr. Steven Voldman:
My name is LiuBo. I am a student of the School of Microelectronics, SJTU, Shanghai, China. It is my great honour to attend the lecture about ESD you held. In the report, you gave us a wide vision of the new trend of MOS devices all over the world.

Your "Chinglish" made us laugh all the time and shortened "the distance of the Pacific Ocean." The only two hours I spent with you seemed very fast. Your humor and sagacity have left me a strong impression.

Thank you very much for the lecture. That's great!

I really hope U can come to China again, then I'll be honestly happy to be the one in your classroom. BEST WISHES!

Continued on page 11

Proline

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Association News

Call for Nominees for Board of Directors Election 2008

Each year, the Constitution and Bylaws of the ESD Association require the membership to elect four Members at Large to the Board of Directors (BoD). Members are elected to three-year terms.

"This is a vital part of our organization's growth," said Kay Adams, president. "It is important to elect a highly qualified team of professionals who can bring their expertise and new ideas to the table for discussion and implementation."

The Association's Human Resources Committee is required to prepare a slate of candidates to fill the four BoD positions, which will be vacated on December 31, 2007. In order to be on the slate: 1) a potential candidate can be nominated by the Human Resources Committee, or 2) a member can submit a petition for a nominee that contains 25 identifiable current ESD Association member signatures, along with their membership number. Please contact the ESD Association office if petition signees do not have their membership numbers available. (Petitions **must** be submitted with signature and membership numbers.)

Requirements

The requirements for acceptance as a nominee are as follows:

1. Must be an ESD Association member in good standing.
2. Must have full management support to attend four BoD meetings per year for three years, documented in a letter to the Association. **Please note:** For all elected Board Members, good attendance at all BoD meetings is a requirement. Two absences in the same year may be considered cause for dismissal (see bylaws section 3.2).
3. Must submit a statement of the nominee's vision for the ESD Association, and a statement of the nominee's qualifications, not to exceed 100 words each.
4. Must submit a photograph suitable for publication.

5. The candidate must understand that elected BoD members will have a job responsibility, typically to manage one of the Business Unit Functions (Meeting Planning, Membership, Certification, Education, Academia Outreach, International, *Threshold*, Website, Standards, Symposium, Industry Liaison, and Volunteer Recognition).

Call to Members

Members are asked to provide nominations by petition to the slate. Petitions (**no faxes**) must be received no later than February 16, 2007, at Association Headquarters: ESD Association, 7900 Turin Road, Bldg. 3, Rome, NY 13440-2069. Accepted nominees will be notified as to the schedule for submitting the additional documentation required in items 2, 3, and 4 above.

Ballots

Ballots will be sent to the general membership by May 1st and must be returned postmarked no later than July 1st. The results of the election will be announced at the Annual Meeting during the 2007 EOS/ESD Symposium in Anaheim, California.

The Human Resources Committee is responsible for ensuring that all candidates placed on the ballot are properly qualified and have met all requirements.▲

Current Board of Directors

<u>Name</u>	<u>Term Expires</u>
Donn Bellmore	2007
Charvaka Duvvury	2007
Leo G. Henry	2008
Tim Jarrett	2008
John Kinnear	2007
Timothy Maloney	2009
Carl Newberg	2007
Dale Parkin	2008
Donn Pritchard	2009
Arnold Steinman	2009
Dave Swenson	2008
Craig Zander	2009

Appointed:

Steve Voldman

Tech Wear, Inc.

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Symposium

Anaheim, California, to host 2007 EOS/ESD Symposium

ESDA Announces Steering Committee

The 2007 EOS/ESD Symposium will work its magic in Anaheim, California. The Disneyland Hotel will host the 29th annual event, September 16-21.

"Anaheim offers the Association an ample and productive environment for the various events at our Symposium," said Lisa Pimpinella, Operations Manager. "Attendees will find comfortable rooms and an efficient flow throughout the Symposium areas."

Conveniently located adjacent to the Downtown Disney® District, the Disneyland® Hotel, a Three Diamond Deluxe Hotel, features 990 rooms in three high-rise towers. Disney themes can be found throughout the site; like the oversized Sorcerer's Hat and the Never Land themed pool. The hotel also includes state-of-the-art business center and conference facilities unrivaled by many Anaheim hotels. So come join us and experience the imaginative environments, attention to detail and Disney-quality service.



Donn Bellmore

The Chair of this year's Symposium is Donn Bellmore, Universal Instruments, Corp., Binghamton, New York. This year's steering committee consists of:

Carl Newberg, Past General Chair
Gianluca Bosselli, Vice General Chair
Horst Gieser, Technical Program Chair
Leo G. Henry, Ph.D., Workshops Chair
Rick Rodrigo, AV Chair
Cheryl Checketts, Arrangement Chair



Disneyland® Hotel

Raivo Leeto, Registration Chair
Donn Pritchard, Exhibitor Liaison
Andy Murello, Information Chair

"This committee is already working to ensure that this Symposium continues to be the best source for ESD information and solutions," said Donn Bellmore.

Recognized as the international forum for furthering the understanding of electric overstress and electrostatic discharge, the annual EOS/ESD Symposium attracts attendees and participants from throughout the world.

Focusing on technology and solutions, the EOS/ESD Symposium covers a broad base of interests including industrial, computer, communications, and military electronics; web processing; cleanrooms; semiconductors, MR/Storage devices; and electronic systems, components, and equipment.

The most targeted, concentrated audience of the worldwide influential specialists in ESD and EOS will come to Anaheim, California, for solutions. They come for tutorials, technical papers, workshops, networking... and they come for the exhibits. See page 10 of this newsletter for details regarding exhibiting at the EOS/ESD Symposium, or visit www.esda.org.▲

Association News

Volunteer Spotlight



Maciej A. Noras, Ph.D.

ESDA highlights Maciej Noras, Ph.D., Trek, Inc., as an exemplary volunteer.

Dr. Noras began his relationship with the ESDA in 2003, when he presented papers at the ESD Symposium.

"I got to know several very nice people there, gaining not only professional connections, but also friends," said Dr. Noras. "I try to be active especially in Ionization and Packaging Standards Committees, and enjoy that very, very much."

"I have also learned a lot about the industries that use ESDA expertise in electrostatic. It is much different from the academic approach I am so used to," said Dr. Noras.

Dr. Noras earned his M.S. in electrical Engineering from Wroclaw University of Technology in 1994, and his Ph.D. in Engineering Science from Southern Illinois University in 2000. He has authored more than 30 professional publications, is a member of IEEE, SPIE, ESDA, ESA, MRS, and Co-Chair of SEMI/EOS-ESD Task Force.

Dr. Noras, his wife Kinga and daughter Ola enjoy sports. Dr. Noras especially enjoys soccer, martial arts, hiking and mathematics.▲

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Symposium

EOS/ESD Symposium Papers Deadline Fast Approaching

The deadline to submit Papers for the 29th Annual Symposium is quickly approaching.

All submissions must be received by **Friday, January 12, 2007**. Late submissions will not be accepted. Abstracts not meeting guidelines may not be accepted. The final submission deadline for the finished papers will be Friday, June 8, 2007. ESDA reserves the right to withdraw any paper not meeting the guidelines, including deadlines. Your paper must be submitted by the deadline. Final papers will be limited to a maximum of 10 pages - guidelines will be provided after acceptance of the paper.

The ESD Association, in cooperation with the IEEE, is sponsoring the Symposium. The Symposium will be devoted to the understanding of issues related to electrical transients and electrical overstress, and the application of this knowledge to the solution of problems in consumer, industrial and military applications, including electronic components and manufacturing, as well as in systems, subsystems and equipment.

The Symposium will take place September 16-21, 2007, at the Disneyland Hotel in Anaheim, California.

For further information regarding the Call for Papers, contact Lisa Pimpinella, Operations Manager, ESD Association at 315-339-6937 or info@esda.org. ▲

Symposium

Exhibit at the 2007 EOS/ESD Symposium

Exhibitors will have the opportunity to showcase their products and services at the EOS/ESD Symposium, which takes place September 16-21 this year.

"Just over half of the exhibit floor is still available for exhibitors to display their products and services," said Lisa Pimpinella, Operations Manager and organizer of exhibit space. "The exhibitor floor has an efficient layout that provides ample space for attendees to flow through the space and learn about the numerous products and services that many of our members offer."

Exhibit hours are:

Monday, September 17
6:00 p.m. - 9:00 p.m.

Tuesday, September 18
9:00 a.m. - 5:00 p.m.

Wednesday, September 19
9:00 a.m. - noon

Contact Lisa Pimpinella at 315-339-6937 or info@esda.org. ▲

There are a total of 80 exhibit spaces in the exhibit hall at the Symposium. The following companies have confirmed their participation as exhibitors:

3M	MKS, ION Systems
ACL, Inc.	Monroe Electronics, Inc.
Barth Electronics, Inc.	Noveon Conductive Polymers
Chronicle Technology, Inc.	Oryx Instruments
Conductive Containers	RTP Company
Desco Industries	Saint-Gobain High Performance
Dou Yee Enterprises, Ltd.	Sauquoit Industries
Dow Chemical	SIMCO an ITW Co.
Electro-Tech Systems, Inc.	Static Solutions
Electronic Polymers, Inc.	STATICO
Flexco	Tech Wear, Inc.
Hanawa Electronic Inc. Co., Ltd.	Thermo
ITW Richmond Technology	Trek, Inc.
Kureha Corporation of America	Vidaro Corp.
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Education

ESD On Campus

continued from page 7

Mr. Voldman,

It was my great honor to attend your ESD Lecture, although I had known a little about ESD before that day as a fresh graduate student.:-) I hope that I can do some research on ESD modelization in EDA software later during my study and research in School of Microelectronics of Shanghai Jiao Tong University. So I hope I can keep contact with you.:-) By the way, your lecture is really great ("Liao bu qi" in mandarin)! Thanks very much.

Liu An (Andy Liu)

School of Microelectronics,
Shanghai Jiao Tong University

Dear Mr Steven,

It's my honour to attend your lecture about ESD. For my major of the designing of IC, I didn't pay much attention to the final result which should be finish on a wafer. During your lecture ,you give us a brief but clear introduction of ESD, I found ESD is a magical process and hope for the next lecture. Of course, you'll speak fluent Chinese one day for your gift in language. Wish to keep in touch. Best Regards, Xiao Xuan

These are just a few of the letters I received....

In conclusion, one of the best events of the Shanghai China trip was when they were all surprised that an American can be a "Lefty," and uses his left hand for chopsticks,...so... at dinner, during my trip, I asked them all to try using chopsticks with their left hand ... and of course they ask me to use my right hand. I will stick to being a "Lefty."

A little Chinglish makes the World Flat and makes the ESD World even Flatter.▲

ESD On Campus Program

Future Visits

- University of Central Florida (UCF)
Orlando, Florida
January 19, 2007
- University of Vermont (UVM)
Burlington, Vermont
January 26, 2007
- Nanyang Technical University
Singapore, Singapore
February 23, 2007
- National University of Singapore
Singapore, Singapore
February 26, 2007
- Universiti Sains Malaysia
Penang, Malaysia
March 1, 2007
- Mapua Institute of Technology
Manila, Philippines
March 10, 2007
- Thammasut University
Bangkok, Thailand
March 13, 2007
- Kasetsart University
Bangkok, Thailand
March 14, 2007
- Mahanakom University
Bangkok, Thailand
March 17, 2007
- University of Buffalo (UB)
Buffalo, New York
April 27, 2007

Association News

ESD Association Awards Research Grant

The ESD Association has presented a grant to help fund research in the area of ESD. The one-year grant is for \$10,000. The grant was presented to Professor Robert Dutton at Stanford University for research in the field of ESD, CDM and gate oxide reliability.

The research work on this project is scheduled for October 1, 2006, through September 30, 2007. The research topic is "Very Fast Transmission Line Pulsing (VFTLP) system for generating 100-ps pulses". The anticipated presentation is at the EOS/ESD Symposium in 2008.

Education

IEW Update

continued from page 5.

Lake, a few miles from South Lake Tahoe, are clusters of 2 and 3 bedroom cabins furnished in the rustic style of an alpine resort. Each cabin is equipped with shared bathroom facilities. All rooms have decks with magnificent views of Fallen Leaf Lake and the surrounding Sierra peaks. The physical isolation of the location and the absence of distractions, such as in-room phones and television sets, encourages extensive interaction among the Workshop attendees. Lodging and all meals will be included in the registration costs for the Workshop. Only registered attendees of the IEW may stay at the Stanford Sierra Conference Center. No guests of the attendees are allowed.

Detailed information including seminar abstracts, instructor biographies, discussion group and special interest group details, and more can be found at www.esda.org/IEW.htm. For additional information, contact the ESDA office at 315-339-6937 or info@esda.org.

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Calendar

February 2007

February 8, 2007

Regional Tutorial Program

Disneyland Hotel®, Anaheim, California
www.esda.org/education/html

February 8-13, 2007

ESDA Standards Meeting Series

Disneyland Hotel®, Anaheim, CA
http://www.esda.org/standardsmeeting-schedule.html

February 13-15, 2007

Electronics West

Anaheim Convention Center
Anaheim, CA
http://www.devicelink.com/expo/ewest07

March 2007

March 7 & 8, 2007

ESDA Professional Certification Classes

Philippines
www.esda.org/education/html

March 25-29, 2007

Electrostatics 2007, 12th International Conference on Electrostatics

St. Catherine's College, Oxford, UK
http://www.iop.org/Conferences/Forthcoming_Institute_Conferences/event_5520.html

Threshold

Threshold™ is published six times a year by the ESD Association, a not-for-profit corporation. It strives for the advancement of theory and practice of electrical overstress avoidance and of allied arts and sciences and the maintenance of a high professional standing among its members and others.

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Threshold™ Publication Schedule

Issue	Deadlines
January/February	Nov. 19
March/April	Feb. 1
May/June	April 1
July/August	June 1
September/October	Aug. 1
November/December	Oct. 1

Threshold Institutional Listings

Space in the Threshold Institutional Listings, which appear at the bottom of newsletter pages, can be purchased for \$600.00 for six consecutive issues. Larger contributions are welcome. No agency fee is granted for soliciting such contributions. Inquiries, or contributions made payable to the ESD Association, should be sent to

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April 2007

April 15-19, 2007

IEEE International Reliability Physics Symposium

Hyatt Regency Phoenix at Civic Plaza
Phoenix, AZ
http://www.irps.org

April 17 & 18, 2007

Regional Tutorial Program

3M Innovation Center, Austin, TX
www.esda.org/education/html

April 30 & May 1, 2007

ESD Device/Design Seminar
ESD Association Headquarters, Rome, NY

May 2007

May 9 & 10, 2007

Regional Tutorial Program
Bloomington, MN

May 14-17, 2007

1st Annual International Electrostatic Discharge Workshop

Stanford Sierra Conference Center
Lake Tahoe, CA
http://www.esda.org/iew.html

May 22 - 24, 2007

Regional Tutorial Program

Tyngsboro, MA
www.esda.org/education/html

June 2007

June 5 & 6

ANSI/ESD S20.20 ESD Program Development
ESD Association Headquarters, Rome, NY

June 18 & 19, 2007

ESD Device/Design Seminar
Munich, Germany

June 21

Regional Tutorial Program

Austin, TX
www.esda.org/education/html

June 21-26

ESDA Standards Meeting Series

Radisson Hotel and Suites
Austin, TX
http://www.esda.org/calendar.html

September 2007

September 13-16

ESDA Standards Meeting Series

Disneyland Hotel®, Anaheim, CA
http://www.esda.org/calendar.html

September 16-21

EOS/ESD Symposium and Tutorials

Disneyland Hotel®, Anaheim, CA
http://www.esda.org/calendar.html

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