

# 12th Annual International Electrostatic Discharge Workshop **IEW Call For Presentations**

May 14-18, 2018 at Priory Corsendonk, Oud Turnhout, Belgium  
<https://www.esda.org/index.php/events/iew/>

## 2018 International Electrostatic Discharge Workshop

Located among century-old forests, the historic Priory Corsendonk provides a picturesque setting with a relaxed and invigorating atmosphere to engage in discussions about the latest issues confronting the ESD and EOS communities. The workshop will include invited seminar speakers, discussion groups, invited talk speakers, technical presentation

sessions, and special interest groups. The IEW is the perfect opportunity to submit late-breaking and exciting new research to stimulate discussion and interaction around new ideas, encouraging new research topics. To maintain the unique IEW experience and provide ample opportunity for discussion, there will be an increased focus on discussion groups and invited speakers in 2018. The IEW

workshop presentation format for technical sessions will begin with each author presenting a brief summary to highlight key findings, followed by an interactive poster-based discussion session among authors and attendees. The IEW is closely aligned with the EOS/ESD Symposium for collaborative conference activities.

**Abstract Submission Deadline October 2, 2017**

### FOCUS TOPICS FOR IEW 2018

#### Wearables

With wearables a new class of mobile devices, such as smart watches, health tracking bracelets, and virtual reality glasses, has emerged recently and will expand strongly in coming years. These battery-operated devices can be characterized by having a high content of advanced electronics in a very small form factor. The combination of sensitive low-power electronics, tiny module sizes and frequent exposure to ESD events in the daily use environment bears challenges for the ESD protection of such devices. Submit your abstract covering the ESD challenges of wearables and discuss your and your peer's experiences during the IEW workshop.

#### Automotive Applications ESD/EMC

The electronic content of automobiles is increasing, leading to more complex electronic modules and system design. Integration of ICs and discrete devices is demanding, considering the module level EMC testing and reliability requirements. The IEW invites contributions that address ESD and EMC challenges in automotive systems design, including complying with standards such as bulk current injection (BCI), direct power injection (DPI), IEC-61000-4-2, ISO-10605, and ISO-7637.

#### Electrical Overstress (EOS)

EOS continues to be one of the single EOS continues to be one of the largest causes of customer returns in the semiconductor industry. Have you recently completed root-cause analysis on a failure with an electrical induced physical damage (EIPD) signature? There is not a defined procedure to determine absolute maximum ratings (AMR) for a product. Do you have a methodology for defining AMR for a product, and verifying it for different timescales? Are you an FA engineer with experience on case studies identifying EOS damage mechanisms and the ensuing physical evidence? Finding sources of EOS can be a challenge. Do you have experience auditing a manufacturing site for sources of EOS? Bring your work to the IEW and share it with your colleagues.

#### EDA for Latch-up Tools

EDA tools for ESD and latch-up verification have significantly matured in the past few years. The ESD Association's EDA working group continues working on the subject. While initially the focus was primarily on ESD it now includes latch-up. A technical report is planned for release prior to IEW 2018 to begin discussions. We invite you to submit posters presenting your ideas and experiences for Latch-up tools.

#### Other topics and areas to consider for abstract submissions include:

##### Anomalous/Unresolved ESD Issues

Random and unrepeatable ESD failures, case histories, ESD tester correlation issues, or unique window failures.

##### System-Level ESD/EOS Issues

On- and off- chip IEC protection clamps, component/system ESD co-design case studies, cable discharge clamps, transient latch-up, design of system-level clamp circuits, system level ESD test issues and scan techniques, and ESD-induced soft errors.

##### Failure Analysis Techniques

Locating failure sites, in particular for CDM, imaging techniques, correlating FA identified damage site with ESD stress, distinguishing EOS-like failures from ESD failures, and unusual failure modes.

##### Technology Integration Issues

ESD sensitivity with technology transfers, 3D IC ESD design issues, qualification challenges for different fabs, unusual problems of process interaction with ESD, process monitor methods, and technology scaling issues.

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**NEW**  
**People's Choice**  
**Award will be**  
**awarded to a poster**  
**chosen by the**  
**attendees.**

**Submission Instructions - Deadline October 2, 2017**

Please prepare your abstract in the form of a short powerpoint presentation. After the title slide, the second slide of the presentation should describe the objective and significance in a 200 word summary. The presentation should not exceed 5 additional slides; with representative data and figures that will be the foundation for the poster you plan to present at the workshop. A template is available to download from <https://www.esda.org/index.php/events/iew/>. Please email your presentation abstract (maximum file size 2 MB) in MS PowerPoint® format including title, author affiliation, and e-mail address to [iew@esda.org](mailto:iew@esda.org) no later than October 2, 2017.

Notification of acceptance will occur by October 23, 2017. Final, full presentations for the workshop in MS PowerPoint® format must be received by April 16, 2018.

There will be no published proceedings of the workshop. Registered attendees will receive a copy of all IEW presentations. For any questions please contact the Technical Program Chair, Mototsugu Okishima, ([mototsugu.okushima.vx@renesas.com](mailto:mototsugu.okushima.vx@renesas.com)).

The IEW encourages student submissions by providing a 50% discount in registration fees for a limited number of student presenters. Proof of student status must be submitted along with the abstract for the workshop presentation.

Please check our web page at <https://www.esda.org/index.php/events/iew/> for regular updates on the workshop. As it becomes available, we will post information on the full technical program including the seminar topics, the keynote speaker, the technical sessions, as well as the discussion group and special interest group topics. In addition to peer-reviewed presentations, attendees will also have the option to present non-peer-reviewed posters at the workshop. Please also go to the web page for information on workshop registration, the Prioory of Corsendonk, and the Oud-Turnhout area.

**Management Committee**

**Management Committee Chair**

Mirko Scholz, imec

**Technical Program Chair**

Mototsugu Okishima, Renesas Electronics

**Keynote Chair**

Bart Keppens, Sofics

**Invited Speaker and Seminar**

**Co-Chairs:**

Eleonora Gevinti, STMicroelectronics

Theo Smedes, NXP Semiconductors

**Discussion Group and**

**Special Interest Group Co-Chairs**

Joost Willemen, Infineon Technologies

Heinrich Wolf, Fraunhofer EMFT

**Audio/Visual Chairs**

Shih-Hung Chen, imec

Fabrice Caignet, LAAS/CNRS

**Industry Council Advisor**

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**ESDA HQ Chair**

Christina Earl

**ESDA Director of Events**

Alan Richter, Analog Devices

**ESDA Executive Director**

Lisa Pimpinella

**Technical Program Committee**

To be announced

**EDA Tools**

EDA verification and simulation tools, techniques, design-flows, best practices, experiences with foundry rule decks, commercial tools, and custom tooling.

**Novel On-Chip Protection Clamps and Circuit Configurations**

New clamp devices and clamp configurations, methods to increase the failure threshold of protected devices, high voltage clamps for automotive and power amplifiers, new chip protection concepts, and low-capacitance clamps for RF and high speed interfaces.

**ESD Test Characterization, Methods, and Issues**

TLP & VF-TLP debug and device characterization methods, correlation of TLP & VF-TLP tests with standard qualification tests, HBM and CDM tester artifacts, unresolved test results and failures, issues relating test qualification levels to real-world exposure, test chip methodology, cable discharge test methods, and test standards issues.

**Lodging & Facilities**

The IEW will retreat in a priory founded in 1395, in Corsendonk, Belgium. The Prioory of Corsendonk is hidden in the green woods of Oud-Turnhout and is surrounded by centuries-old trees and pastures. On this estate lies a guesthouse which has provided shelter for travelers throughout the centuries. There are spacious standard rooms and small but charming monk rooms, each equipped with private bathroom facilities, telephone, and internet access. The relaxed setting and the absence of distractions encourages extensive interaction among the workshop attendees. Lodging and all meals are included in the registration cost for the workshop. **Attendees are allowed to bring guests who will be charged separate fees.**



**2018 International Electrostatic Discharge Workshop**

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