

27th EUROPEAN SYMPOSIUM ON RELIABILITY OF ELECTRON DEVICES, FAILURE PHYSICS AND ANALYSIS

ESREF 2016 Halle, Germany



September 19 – September 22, 2016
Händel-Halle, Halle (Saale)

www.esref2016.org

CALL FOR PAPERS

> SCOPE OF CONFERENCE

ESREF 2016, the 27th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis will take place in Halle (Saale), Germany from September 19th to 22nd, 2016.

The conference continues to focus on recent developments and future directions in quality, robustness and reliability research of materials, components, integrated electronic circuits/systems and their nano-, micro-, power-, optoelectronics devices. ESREF provides the leading European forum for developing all aspects of reliability management and failure prevention for present and future electronics. ESREF 2016 will have a specific focus on reliability issues in automotive electronics.

A word from the general chair

With regard to current technology developments and market trends in the automotive industries, it is very impressive to note how fast electronics became one of the most decisive factors for today's and future automotive applications. New trends like assisted driving and connected cars, electric vehicles, or progress in motor and safety managements are highly dependent on increasingly more complex semiconductor-based systems. In turn, these new application fields are significantly affecting the technology roadmaps of the electronics industry. And there is no doubt- these thrilling developments will also pose many new and very challenging demands specifically on electronics robustness and reliability. Thus, while ESREF 2016 will continue in considering the full spectrum of reliability topics in electronics, it will additionally address the field of automotive electronics reliability as its special topic. It is a great pleasure to invite you to meet the experts in electronics reliability and failure analysis at ESREF 2016 in Halle (Saale)!

Matthias Petzold

> CONFERENCE TOPICS

- Automotive electronics reliability (focus topic)
- Reliability of nano- and microelectronics for the connected world
- Reliability of power electronics for energy efficiency and industrial applications
- Reliability of photonics and MEMS devices
- Security and safety
- Innovative failure diagnostics and quality control
- Reliability concepts and modelling

The following conference tracks and sessions are planned for ESREF 2016:

- A:** Quality and Reliability Assessment –Techniques and Methods for Devices and Systems
- B:** Semiconductor Reliability and Failure Mechanisms
- C:** Reliability and Failure Mechanisms in Packaging and Assembly
- D:** Progress in Failure Analysis Methods
- E:** Power Devices Reliability
- F:** Reliability and Failure Mechanisms of Wide Bandgap Devices
- G:** Reliability and Failure Mechanisms of special photonics and LED Devices
- H:** Reliability and Failure Mechanisms of MEMS and sensor systems
- I:** Reliability of automotive electronics from a systems perspective (CAM-Industry Workshop)

Additional workshops and tutorials are planned for the conference. Please follow our website www.esref2016.org to be informed about the continuous updates in the call for papers and in the conference organization.

> KEYNOTES (tentative)

1. **Manfred Horstmann**, Director of products and integration, Globalfoundries (GER): Robust nanoelectronics enabling future automotive applications
2. **NN**, Infineon AG (Austria): topic tbd
3. **Berthold Hellenthal**, Head Progressive SemiConductor Program AUDI AG (GER): Automotive Electronics Roadmap and the wish list on electronics

Furthermore, a panel discussion focusing on the consequences of increasing use of cutting edge "consumer" electronics in automotive applications for the reliability management is planned.

> EXHIBITION

The exhibition of ESREF 2016 offers you an excellent opportunity to present your company's newest products and achievements within the electronics manufacturing chain from material supply, semiconductor and component manufacturing, packaging and assembly, service and instrumentation providers, system supply up to global OEMs. The event and exhibition provide an outstanding platform to discuss new solutions with your potential customers and to exchange information on future directions of technology developments and resulting needs and demands with your partners and suppliers.

Companies interested in exhibiting please contact VDE Conference Services: jasmin.kayadelen@vde.com

> ORGANIZATION COMMITTEE

General Chair:

M. Petzold, Fraunhofer IMWS- CAM (GER)

Conference Vice-Chairs:

M. Paulasto-Kröckel, Aalto University, Helsinki (FI)
E. Wolfgang, ECPE (GER)

Advisory board:

P. Perdu, CNES (FRA)
M. Baffleur, LAAS (FRA)
I. de Wolf, IMEC (BE)
W. Kanert, Infineon AG (GER)
B. Hellenthal, AUDI AG (GER)

Technical Program Chairs:

F. Altmann, IMWS-CAM (GER)
E. Langer, Globalfoundries (GER)

Tutorial Chair:

P. Jacob, EMPA, (CH)

Exhibition Chair:

Fulvio Infante, Intraspex Technologies (FR)

Publicity Chair:

J. Touzel, Infineon (GER)

Best Paper Chair:

N. Labat, Université de Bordeaux, IMS (F)

Finance Chair:

V. Schanz, Information Technology Society, ITG, within VDE (GER)

Conference Organization Support:

C. Groß, VDE Conference Services (GER)
J. Kayadelen, VDE Conference Services (GER)

Local organization:

K. Stock, Fraunhofer IMWS-CAM (GER)

> TECHNICAL PROGRAMME COMMITTEE (tentative)

Session A: N. D. Stojadinovic, University of Nis (Serbia)
W. Kanert, Infineon, (GER)

Session B: M. Baffleur, LAAS (FRA)
NN Globalfoundries (GER)

Session C: H. Fremont IMS, University of Bordeaux (FRA)
R. Rongen, NXP (NL)

Session D: I. De Wolf, IMEC (BE)
W. Mack, Infineon (GER)

Session E: M. Ciappa, ETH Zurich (CH)
R. Bayerer, Infineon (GER)

Session F: J. Würfl, FBI (GER)
S. Delage, THALES, (F)

Session G: M. Vanzi, University of Cagliari (IT)
H. Brunner, Osram (GER)

Session H: M. Paulasto-Kröckel, Aalto Univ (FI)
U. HANSEN, Bosch (GER) (tbc)

Session I: W. Wondrak, Daimler AG (GER)
S. Klengel, Fraunhofer IMWS-CAM (GER)

> CONFERENCE VENUE

Händel-Halle is located in the immediate centre of Halle city (vis-à-vis Hallmarkt)

Georg-Friedrich-Händel-Halle
Salzgrafenplatz
106108 Halle (Saale)

ABOUT HALLE – There is much to listen to in Händel's native town (Händel Festival, Children's Choir Festival), to celebrate (Lantern Festival, Salt Festival), to look at (Nebra Sky Disk), Moritzburg Foundation, Stadt-gottesacker, Franckesche Foundation, Dome, Marien Library and to experience (Opera, theatres of the spoken word, and a music hall).

Besides this Halle (Saale) is an important business, technology and scientific location. Together with Leipzig, which is located at a distance of 38 kilometres from Halle, Halle (Saale) forms the centre of the urban economic metropolitan area of central Germany.



> SUBMISSION GUIDELINES

The deadline for the submission of abstracts will be in March 2016.

The **2-page abstract** should include a five-line text summary, all images, figures and references, as well as the complete postal and e-mail address of the corresponding author. Please note that abstracts and papers must be in English. Please indicate your preference for oral or poster presentation. Authors are requested to upload a file in Adobe Acrobat PDF. Further information is available at: www.esref2016.org

> IMPORTANT DEADLINES

March 2016	Submission of abstracts
April 2016	Notification of acceptance
June 2016	Submission of manuscripts

It is planned to publish the ESREF 2016 proceedings as a special issue of the scientific journal "Microelectronics Reliability" (Elsevier).

> CONFERENCE ORGANIZATION CONTACT

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