

**EuroSimE****March 24-27, 2019  
Hannover, Germany**

# Call for papers

Submit an abstract on [www.eurosim.org](http://www.eurosim.org)

**The 20th EuroSimE conference in Thermal, Mechanical & Multiphysics Simulation and Experiments in Micro/Nano-Electronics and Micro/Nano-systems**

Organized by **Gottfried Wilhelm Leibniz Universität Hannover**, the 20<sup>th</sup> EuroSimE 2019 will be hosted in the city of **Hannover**. The conference will address the results of fundamental research and industrial applications for **vibrational, thermal, mechanical** and **multiphysics** simulation and experiments of micro/nano-electronics and microsystems.

**Free** (for conference attendants) **short courses will be offered for professional training on March 24 2019**. Three days of technical sessions (March 25-27 2019) for oral and poster presentations are planned, in parallel with an exhibition of suppliers of experimental characterization equipment, and simulation and optimization software, demonstrating their latest features. Dedicated session with results of EU funded projects.

Industry keynotes by **Qualcomm** (Ahmer Syed), **Bosch** (Udo-Martin Gómez) and **NXP** (Darrel Frear).

**On Wednesday March 27 is planned a visit in Robert Bosch Elektronik GmbH (Salzgitter) manufacturing plant.**

Accepted papers will be submitted for inclusion into **IEEE Xplore®** Digital Library. Selected papers will be offered co-publishing in Elsevier magazines on Microelectronics Reliability and Mechatronics. A selection of extended papers will be published in a special issue on Modeling, Simulation and Multi-Physical Experimentation of Micro and Nanosystems of a renown journal of micro-technologies. Based on the **initial abstract**, the candidates for the best paper award will be nominated and mentioned on the program. The winner will be granted free entrance to EuroSimE 2020.

## Subjects

- Multi-physics simulation (e.g. vibrational, thermal, mechanical, thermo-mechanical, coupled thermo-fluidic, coupled electro-mechanics, fluid structure interactions)
- Material characterization, experiments and modelling
- Integrated process modelling
- Simulation-based optimization, virtual prototyping and pre-qualification in product and process design
- Advanced numerical and analytical simulation methodologies and tools
- Multiscale modelling and simulation
- Compact modelling and model order reduction
- Behavioral modelling
- Experimental methods for validation of simulation models
- Failure analysis and failure mode extraction
- Failure criteria and damage modelling for reliability prediction
- Prognostics and Health Management
- Additive Manufacturing 3D Printing, 3D packaging
- End-of-Life estimation of electronic components under vibration
- FE Methods to derive the dynamic response under vibration

## Applications

- Electronic components, packaging and system integration for industrial, automotive, aerospace, energy, lightning, medicine, agriculture application
- 3-D microsystem packaging, heterogenic and hybrid technology
- Packaging for harsh environments, high temperature and high electrical power
- Piezoelectric, piezoresistive and functional ceramic sensors and components
- MEMS sensors and actuators
- Smart systems integration
- Flip-chip, BGA, CSP, Wafer-Level packages, MCM, Cu/low-k packages
- 3-D integration, TSV-Technology
- Opto-electronic packages, Opto-mechanical devices
- Nano-electronic mechanical devices
- Microfluidics for novel cooling concepts



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## Important dates

- Abstract submission deadline: **October 30<sup>th</sup> 2018**
- Notification of acceptance: **December 15<sup>th</sup> 2018**
- Full manuscript submission deadline: **March 1<sup>st</sup> 2019**