More information at www.eurosime.org

FIRST CALL FOR PAPERS

The 28th EuroSimE conference will take place in Regensburg, Germany from April 11 to 14, 2027. Regensburg is one of Germany's best-preserved medieval cities and a UNESCO World Heritage Site, known for its rich history and stunning architecture. The conference will present the results of fundamental research and industrial applications of thermal, mechanical, and multiphysics simulations and experiments of micro/nanoelectronics and microsystems.

On April 11, 2027, professional training courses will be offered, followed by three days of technical sessions from April 12 to 14, 2027, comprising oral and poster presentations. These sessions will include industry keynote talks given by invited speakers holding leading industrial positions, who will highlight major technological and industrial development trends, challenges, and roadmaps. In addition, technical keynote talks will address critical issues in modeling and experimentation for microelectronics and microsystems. In parallel, an exhibition of suppliers of experimental characterization equipment and simulation/optimization software will demonstrate their latest features. Accepted papers will be submitted for inclusion in the IEEE Xplore digital library. The best papers will be selected for publication in the Microelectronics Reliability Journal from Elsevier and the Micromachines Journal from MDPI. Candidates for the best papers will be preselected based on abstracts that clearly highlight the scope, approach, and major results of the proposed contributions.

Single domain simulation
- Thermal, mechanical, thermo-mechanical, vibration, shock
- Chip package board interaction
- Advanced numerical and analytical simulations methodologies and tools
- Compact Modelling & Model Order Reduction
- Digital twins
- Advanced thermal management concepts

Material characterization and validation
- Material characterization, experiments and modelling
- Bulk and interface toughness, characterization and modeling
- Experimental methods for validation of simulation models
- Failure analysis and failure mode extraction
- Failure criteria and damage modelling for reliability prediction

Application domains
- Electronic components, packaging and system integration for applications including aerospace, automotive, energy, lighting and medical.
- MEMS sensors & actuators, piezoelectric, piezoresistive, functional ceramic sensors and components
- Opto-electronic & opto-mechanical devices
- Nano-electronic mechanical devices
- Consumer electronics

Multi-physics simulation
- Multi-physics simulation (MEMS, manufacturing and process models, electronic control unit/system level, fluid structure interactions)
- Multi-scale modelling and simulation
- Integrated process modelling
- Simulation-based optimization, virtual prototyping and pre-qualification in product and process design
- Simulations for heterogeneous integration

Emerging modeling methods and tools
- Prognostics and Health Management (PHM)
- Development and implementation of artificial intelligence and machine learning
- Use of big data in simulation & reliability applications
- 3D packaging, TSV technology, heterogenuous integraton, chiplet packaging
- Additive manufacturing (3D printing) for electronics

Important dates
Abstract submission deadline: **October 26, 2026**
Notification of acceptance: **December 17, 2026**
Full manuscript submission deadline: **March 2, 2027**

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Abstract submission through ConfTool at www.conftool.org/eurosime2027