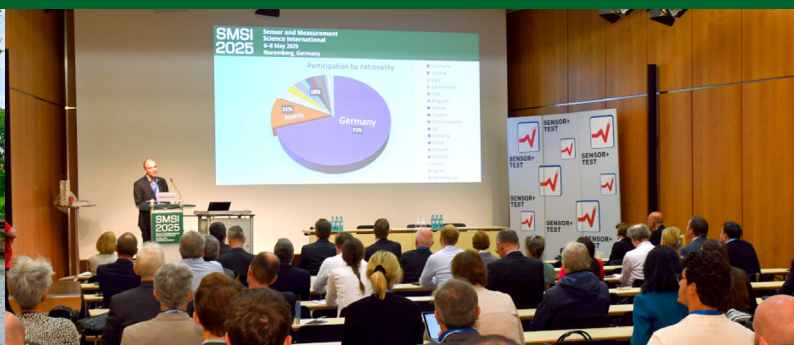




# SMSI 2027

**Sensor and Measurement  
Science International**  
**11-13 May 2027**  
**Nuremberg, Germany**



## Call for Papers

Join international experts from science, industry, and research to share the latest developments in sensor technology, measurement science, and metrology. Connect with peers at the central platform held in parallel to the leading SENSOR+TEST exhibition.

### Why attend SMSI 2027?

- Top-class peer-reviewed conference program
- Excellent networking with industry & science
- Exclusive Poster Session & Best Poster Awards
- Insights into Funding Opportunities
- Tutorials, Special Sessions, Industrial Sessions
- Scientific exhibit area for research demonstrators at SENSOR+TEST exhibition
- Exclusive Conference Dinner featuring traditional German cuisine
- Free access to the SENSOR+TEST exhibition

### Conference Chairs:

Prof. Dr. Ulrich Schmid  
Technische Universität Wien

Prof. Dr. Michael Heizmann  
Karlsruhe Institute of Technology (KIT)

### Important Deadlines:

Submission: 16 November 2026  
Author Notification: 15 February 2027



# TOPICS FOR YOUR SHORT PAPER SUBMISSION

## Sensors and Instrumentation

### A - Sensor materials and technology

- A.1 Advanced functional materials
- A.2 Micro- and nanoscaled material properties
- A.3 2D and 1D materials
- A.4 Organic and flexible materials
- A.5 MEMS/NEMS technologies
- A.6 Heterogeneous integration
- A.7 Printing and additive manufacturing
- A.8 Modelling and simulation
- A.9 Robustness and aging phenomena
- A.10 Reliability

### B - Sensor principles and devices

- B.1 Physical sensors
- B.2 Chemical sensors
- B.3 IR detectors
- B.4 Micro-optical devices
- B.5 Bio-sensors
- B.6 Medical sensors
- B.7 Quantum sensors
- B.8 Flexible and wearable sensors
- B.9 Advanced packaging and device encapsulation
- B.10 Integrated sensors
- B.11 Micro-and nanosystems
- B.12 Modelling and simulation
- B.13 (Accelerated) aging and reliability

### C - Sensor interface electronics

- C.1 Readout circuits
- C.2 Signal conditioning and processing
- C.3 Conversion and digitization
- C.4 Low power electronics
- C.5 Ultra-precise interface electronics
- C.6 Stability under harsh environments
- C.7 Embedded systems

### D - Sensor systems

- D.1 (Micro) hybrid integration
- D.2 Energy harvesting
- D.3 Energy storage
- D.4 Wireless communication and energy transfer
- D.5 Modelling and simulation of sensor systems
- D.6 Sensor and actuator systems
- D.7 Ultra-low and zero power sensors
- D.8 Packaging technologies
- D.9 Reliability and aging phenomena

## Measurement Science and Metrology

### E - Measurement Foundations

- E.1 Modelling and simulation of measurement processes
- E.2 Signal processing, data analysis and information fusion
- E.3 Dynamic quantities and state estimation
- E.4 Evaluation of measurement uncertainty
- E.5 Measurement and evaluation of nonquantitative properties
- E.6 Revised SI and its opportunities

### F - Metrology in the digital age

- F.1 Novel traceability schemes
- F.2 Future metrological infrastructure
- F.3 Technology and knowledge transfer
- F.4 New regulations and standards
- F.5 Risk analysis in metrology and conformity assessment
- F.6 Accreditations and proof of competence

### G - Networked and IoT-related measurement systems

- G.1 Sensor networks: modelling, calibration, synchronization
- G.2 Smart sensors, self-X strategies
- G.3 Autonomous measurement systems

### H - Advanced measurement approaches

- H.1 Quantum-based measurements
- H.2 One-step-traceability solutions
- H.3 Numerical simulation approaches
- H.4 Virtual systems and digital twins

### I - AI approaches in measurement science

- I.1 Data-driven modelling approaches
- I.2 Measurement systems with cognitive features
- I.3 Quality assessment of data-driven and cognitive systems
- I.4 Explainable AI in measurement systems

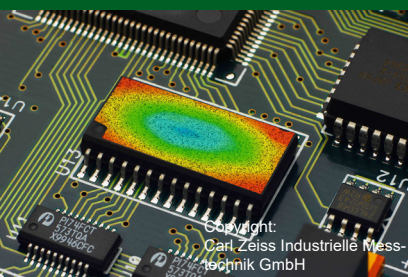


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## X - Applications

### Topics for both pillars

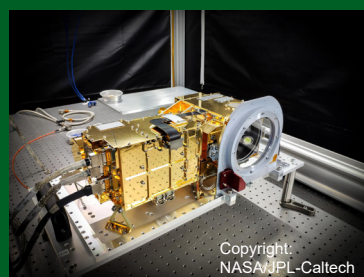
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|-----------------------------------------|----------------------------------------------|--------------------------------|
| X.1 Industrial process technology       | X.6 Environmental monitoring, climate change | X.10 Health                    |
| X.2 Industrial manufacturing technology | X.7 Mobility                                 | X.11 Smart living, smart homes |
| X.3 Consumer electronics, white goods   | X.8 Safety and security                      | X.12 IoT                       |
| X.4 Robotics                            | X.9 Space and aviation                       |                                |
| X.5 Energy technology                   |                                              |                                |



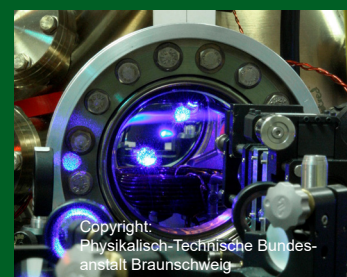
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