

COMMITTEE

Conference Chairs

- Thomas Otto, Fraunhofer ENAS
- Stefan Finkbeiner, Bosch Sensortec GmbH
- Sebastien Dauvé, CEA LETI

Core Team

The conference is prepared by the new core team, which includes high-level experts from industry as well as from basic and applied research organizations:

- Klas Brinkfeld, RISE
- Sywert Brongersma, IMEC
- Wolfgang Dettmann, Infineon Technologies AG
- Thomas Dietrich, IVAM
- Albrecht Donat, Siemens AG
- Roland Doerr, microTEC Suedwest
- Luis Fonseca, Centro Nacional de Microelectronica (CNM-IMB-CSIC)
- Paddy French, TU Delft
- Rainer Günzler, Hahn-Schickard
- Thomas Hammer, Siemens AG
- Christoph Koegler, T-Systems Multimedia Solutions
- Matthias Kuehnel, Robert Bosch GmbH
- Jochen Langheim, STMicroelectronics / EURIPIDES
- Antonio Lionetto, STMicroelectronics
- Thomas Otto, Fraunhofer ENAS
- Jean-Philippe Polizzi, CEA LETI
- Harald Poetter, Fraunhofer IZM
- Alan O’Riordan, Tyndal
- Sven Rzepka, Fraunhofer ENAS
- Elisabeth Steimetz, EPoSS
- Martina Vogel, Fraunhofer ENAS
- Christian Wagner, Fraunhofer ENAS

VENUE



The conference takes place April 26–28, 2022 in Grenoble, France.

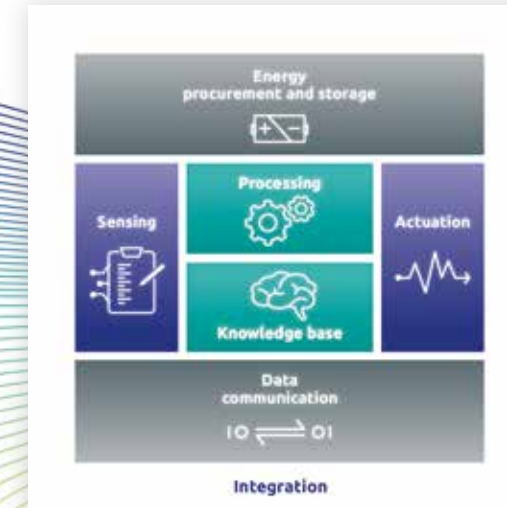
The conference venue is Maison Minatec. Details will be published by the technical organizer on the webpage as soon as all further details are clarified.

The technical organization is done by
Silicon Saxony Management GmbH



smartsystemsintegration

INTERNATIONAL CONFERENCE AND EXHIBITION
ON SMART SYSTEMS INTEGRATION



CALL FOR PAPERS

GRENOBLE, FRANCE

APRIL 26-28, 2022



INVITATION

After a digital Smart Systems Integration Conference in 2021, the SSI community will hopefully meet again in presence in Grenoble in 2022. We kindly invite you to present your recent developments in the field of Smart Systems Integration and system solutions there. The conference will cover topics along the whole value chain starting from MEMS/ NEMS, photonics, microfluidics or printed technologies for sensor manufacturing up to complete smart systems with embedded intelligence and to different application scenarios.

Digitization is not only increasingly entering our lives, it is a real game changer! There will be not only advances in individual components and subsystems necessary, especially connectivity and implementation of intelligence “at the edge” integrated in smart modules and systems will be the key. To be successful in future, interdisciplinary approaches are required more than ever.

The conference will therefore cover all aspects and technology readiness levels. Key enablers and key technologies will be addressed as well as new design concepts and embedded intelligence as well as specific application domains (mobility, energy, industry, agrifood, biomedical applications, and healthy living). Beyond research topics, EPoSS as co-organizer will organize sessions on strategy and business creation as well as on impact resulting from European funded projects in the domain.

In an engaging and compact format, the conference will provide a unique and valuable opportunity to interact with the stakeholders of the Smart Systems community along the value chain by means of technical sessions, strategy panels and exhibition booths. Research and technology organisations, small and mid-sized enterprises and industry will share their latest approaches and the results.

On behalf of the whole committee – we are looking forward to receiving your abstracts.

Prof. Thomas Otto
Conference Chair

Dr. Stefan Finkbeiner
Conference Chair Industry

TIMELINE

Abstract submission starts November 1, 2021

Deadline for abstract submission

- **Scientific Abstracts** December 10, 2021
- **Abstracts from industry** January 6, 2022

Deadlines for scientific papers

- **Selection by Committee** January 17, 2022
- **Submission of Full Paper** February 28, 2022
- **Peer Review** March 28, 2022
- **Submission of Revised Paper** April 15, 2022



©Robert Bosch GmbH

EPoSS Working Group Meetings

April 26, 2022

Conference

April 27–28, 2022

Exhibition

April 27–28, 2022

Conference Dinner

April 27, 2022

**Online Abstract Submission
until December 10th, 2021**

SUBMISSION OPPORTUNITIES

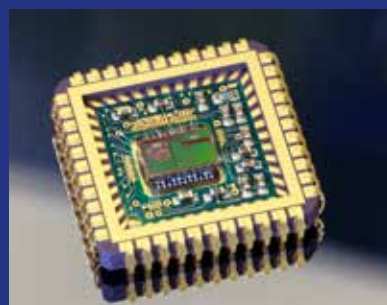
Two opportunities for presentation at the conference:

- Scientific abstracts need a full scientific paper (min. 4 pages). The full papers undergo a Peer review process. Accepted papers will be submitted for inclusion into IEEE *Xplore*® subject to meeting IEEE *Xplore*'s scope and quality.
- Industry and European Projects are kindly encouraged to submit abstracts for presentation only. There is no full paper requested. The abstracts will be not included in IEEE *Xplore*®.

Conference Language: English



©RISE



©Fraunhofer ENAS

Selection Process

The committee will review all the abstracts. Submitted abstracts may be selected for oral or poster presentation.

Oral and Poster Presentations

Three parallel sessions will be held at the conference. Poster authors will have the possibility to present their posters in a dedicated session and also throughout the conference. All scientific oral and poster presentations will be included in the conference proceedings. The proceedings will be additionally published open access.

www.smartsystemsintegration.com

TRACKS

Please indicate the track number when submitting the abstract or the full paper.

Track 1

Key Enablers for Next Generation Smart Systems

Novel Technologies for Manufacturing of Smart Systems:

- Novel concepts for smart sensing, actuation, energy supply, and communication
- Material innovations, new fabrication tools & processes
- Advanced micro / nano and smart power technologies
- Smart low-cost approaches including roll-to-roll technologies and printed functionalities
- 2.5/3D integration, interconnect technologies & packaging for the electronics and all associated sensors/actuators etc.
- Heterogeneous integration for Smart Systems
- Fabrication of micro/nano systems & smart power systems

Track 2

Key Technologies for Smart Systems

New Architectures, Design Concepts incl. Embedded intelligence Hardware and software building blocks of Smart Systems, their design, fabrication, and test methods at device, wafer, component, module, and system levels:

- Design & design verification methods for Smart Systems & system Integration
- Embedded intelligence and cognition at the device and system level
- Software building blocks of Smart Systems
- Data processing, Artificial intelligence at the edge
- Methodologies and concepts for reliability, safety, and security to be inherently built into components and systems

Track 3

Application Domains: Mobility, Energy, Industry

AI based smart sensor systems and networks, control units and drives incl. aspects such as power electronics, packaging and further system integration as well as communication systems

TRACKS

for the fields of (auto)mobility, energy, and automation like:

- E-mobility (land, air and sea) and its infrastructure
- Highly automated and connected vehicles
- Secure, reliable, decentralized, multi-modal energy systems with a high level of renewable sources
- Highly automated distribution grids coupling the energy sector with mobility, industry & domestic use
- Ultra-flexible, high-performing, energy and resource efficient, and collaborative production facilities
- Digital twins supporting from design to customer service

Track 4

Application Domains: Food, Biomedical, Healthy Living

Disruptive innovation of Smart Systems in terms of accuracy, autonomy, automation, cost, size, etc. for applications like

- Digitizing agriculture for sustainable production
- Food safety, security, and monitoring from field to fork
- Inexpensive real-time disease detection, e.g. COVID-19
- Connected life - Enabling the work-life balance
- Combined wearable / implants systems
- Enabling healthy lifestyles to prevent disease and to promote autonomous living

Track 5

Strategy and Business Creation

Policy talks will be invited. CfP is open for following topics:

- Smart System Solutions created by start-ups and SMEs
- Results of industrial partners and impact gained in funded European projects
- Standardisation topics
- Presentations of European and local networks, Coordination and Support Actions (CSAs) related to SSI topics, Digital Innovation Hubs