smartsystems integration

International Conference and Exhibition
on Integration Issues of Miniaturized Systems

Conference program

Co-organizer:

Fraunhofer ENAS

Fraunhofer IZM

Part of the activities of:

EPoSS

In cooperation with:

Brendan Mc Kearney Consulting

Roger Grace Associates Marketing Counsel

Welcome to the 11th Smart Systems Integration

The Smart Systems Integration 2017 is the International Conference and Exhibition on the integration of materials, devices and systems. It started 2007 as an European conference and exhibition and has now become a leading event on an international level. It serves as a communication platform for academia, research and industry and enables the exchange of know-how in the field of smart systems integration.

Smart systems are the hardware basis for the internet of things (IoT). Equipped with the ability to mutually address, identify and work in networks, they enter more and more into diverse innovative products and applications. The application areas include not only smartphones with their advanced functionality, but also monitoring systems for sustainable production, smart grid, smart home as well as support systems for senior citizens to guarantee them a more independent lifestyle.

Smart systems are developed by using key enabling technologies and by integrating the knowledge from a variety of disciplines. They benefit from the progress in nanoelectronics and nanotechnologies, but also from design methods and tool development.

The conference addresses the smart systems themselves starting from the design via new building blocks for sensing, data processing, actuating, networking, and smart powering up to heterogeneous integration of the different building blocks and manufacturing of the systems. They can be built out of a diversity of materials to assure the highest performance, reliability, functional safety and security as required for operations under complex and harsh conditions with multiple loads of critical magnitude acting simultaneously.

The topic IoT is addressed in both keynote sessions. On the second day of the conference the keynote session will have a new format. After the keynote presentation, invited keynote speakers and high level attendees discuss emerging technologies for the IoT in a panel discussion.

As in previous years, EPoSS – the European Technology Platform on Smart Systems Integration – is organizing two special sessions on the first conference day. Participation in these meetings is open to all interested delegates. After the EPoSS sessions, a special session will be held, which addresses perspectives of smart systems.

The pre-conference field trip to the Tyndall National Institute in Cork on Tuesday, March 7th 2017 completes the program. Directly after this pre-conference field trip, all delegates are invited to attend the workshop of Smart Anything Everywhere Initiative. In addition, meetings of the EPoSS working groups will take place on March 7th, the day before the conference.

The 11th Smart Systems Integration Conference 2017 will show a snapshot of the international work in the field of smart systems integration on application and basic research level as well. I'm looking forward to meet you in Cork.

Prof. Dr. Thomas Otto
Fraunhofer Institute for Electronic Nano Systems, DE
Conference chair, Smart Systems Integration 2017

Knowledge exchange – Trends & innovations – networking

Why to attend

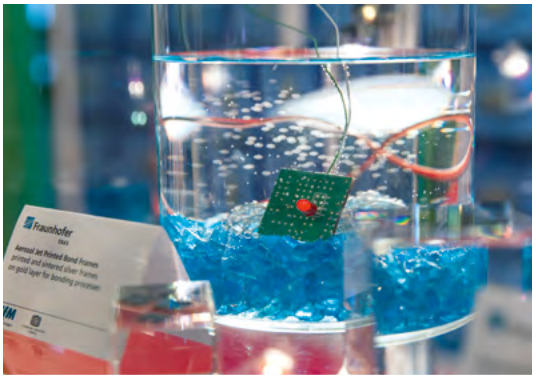
The event features application-oriented as well as scientific sessions and addresses the complete value-added chain of smart systems. Moreover an overview of special European programs focusing on smart systems integration is given.

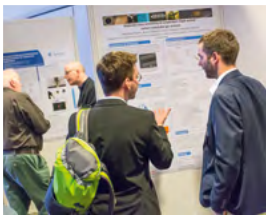
The 2016 edition in Munich was attended by 282 experts from 19 countries.

Who should attend

SSI targets researchers, developers and users in equal measure. It is the platform for smart systems integration experts and managers from the automation, automotive, aerospace, telecommunication, medical technology, logistics, RFID and life sciences industry sectors.

REGISTER NOW AT
smartsystemsintegration.com/registration





Conference highlights

Keynotes by

- Tyndall National Institute
- Analog Devices
- EPFL École polytechnique fédérale de Lausanne
- Atlantic Bridge

Special sessions

- EPoSS
- Perspectives of smart systems
- Success stories

Pre-conference field trip to Tyndall National Institute

Tuesday, 7 March 2017 14:30 – 19:50

The pre-conference field trip on March 7th 2017 is going to Tyndall National Institute in Cork. Tyndall National Institute is a leading European research centre in integrated ICT (Information and Communications Technology) hardware and systems. The guided tour to the research centre will present the daily activities of Tyndall National Institute. The tour showcases Tyndall´s facilities and participants will have the chance to visit for example

- Life Science Laboratories
- Central Fabrication Facilities
- Advanced Photonic Packaging Laboratory
- Optical Communications Systems Laboratory

The pre-conference field trip also includes the participation in the workshop on Smart Anything Everywhere Initiative as well as in a reception at Tyndall National Institute.
A shuttle bus brings participants to Tyndall National Institute and back.

Conference dinner

The traditional conference dinner on March 8th 2017 is taking place in the Ballymaloe House´s Grainstore. The dinner offers the opportunity for intensive discussions and networking in a relaxed atmosphere. During the dinner the Best Paper and Best Poster Award of SSI 2016 will be presented.

Please note: Registration to the pre-conference field trip as well as the dinner is required due to limited capacities!

Conference program

Wednesday, 8 March 2017

Great Island Ballroom I

→ **9:00 hrs**

Welcome

Prof. Dr. Thomas Otto, Fraunhofer Institute for Electronic Nano Systems ENAS, DE

Great Island Ballroom I

Chair: Prof. Dr. Thomas Otto, Fraunhofer Institute for Electronic Nano Systems ENAS, DE

→ **9:10 hrs**

Keynote I

Smart Sensor Systems: Engine of the Future Internet

Kieran Drain, Tyndall National Institute, IE

→ **9:40 hrs**

Keynote II

Smart Networking for Industrie 4.0

Mike Byrne, Analog Devices, IE

→ **10:10 hrs**

Keynote III

Smart Sensors for Future Internet-of-Humans

Dr. Adrian Ionescu, EPFL, CH

→ **10:40 hrs – 11:05 hrs** Coffee break

The special sessions by EPoSS, the poster presentations and the exhibition are free of charge to all participants, exhibitors and registered visitors.

Baltimore Suite

Design of smart integrated systems I

Chairperson: Dr. Christian Hedayat, Fraunhofer Institute for Electronic Nano Systems, DE; Dr. Reinhard Neul, Robert Bosch GmbH, DE

→ **11:05 hrs**

Self-powered sensors using parametric resonance

Dr. Anthony Rix, 8power ltd, UK

NOMINATED BEST PAPER AWARD 2017

→ **11:30 hrs**

Self-powered Wireless Sensor Node

Dr. Bogdan Rosinski, VERMON SA, FR

NOMINATED BEST PAPER AWARD 2017

→ **11:55 hrs**

A new approach to miniaturize high resolution linear position measurement systems

Dr. Rolf Slatter, Sensitec GmbH, DE

WINNER BEST PAPER AWARD 2016

→ **12:20 hrs**

System integration of printed biosensors for sweat electrolytes with data acquisition via Bluetooth to App

Dr. Susanne Oertel, Fraunhofer Institute for Integrated Systems and Device Technology IISB, DE

Glandore Suite

System integration and packaging I

Chairperson: Rolf Aschenbrenner, Fraunhofer Institute for Reliability and Microintegration IZM, DE; Prof. Dr. P. J. French, Delft University of Technology, NL

→ **11:05 hrs**

3D Packaging Technologies for Smart Medical Implants

Tim Schröder, Fraunhofer Institute for Electronic Nano Systems ENAS, DE

→ **11:30 hrs**

3D-MID Design and Manufacturing

Manuel Martin, Beta LAYOUT GmbH, DE

→ **11:55 hrs**

Electrical feed through for tool integrated high temperature applications

Folke Dencker, Leibniz Universität Hannover, DE

→ **12:20 hrs**

Advanced passive optical alignment to meet the latest packaging requirements in photonic packaging

Martin Rogge, Finetech GmbH & Co. KG, DE

Great Island Ballroom I

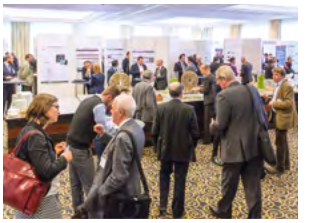
EPoSS session I

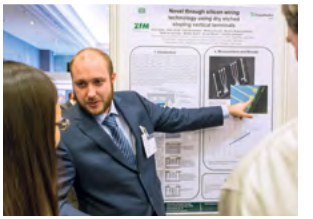
→ **11:05 hrs – 12:45 hrs**

What's next? New Paths for Smart Systems Integration in Europe

Smart systems are an indispensable part of modern society, delivering high-performance products in growing sectors such as health, transport, communications, energy, water, textiles, forestry and food, thereby answering societal challenges. To further advance smart systems integration in Europe, a dedicated strategy towards disruptive and continuous technology development and innovation is called for. To stay globally competitive, smart systems integration has to grow into an ecosystem that is able to provide smart technologies addressing any challenge everywhere. This session will examine upcoming opportunities and challenges and prepare for long-term strategies for the development of smart systems integration in Europe.

→ **12:45 hrs – 13:45 hrs** Lunch break





Conference program

Wednesday, 8 March 2017

Baltimore Suite

Design of smart integrated systems II

Chairperson: Dr. Alexandru Muller, IMT Bucharest, RO

→ **13:45 hrs**
CMOS-Design of a Cascadable Front-End ASIC for Capacitive Micromachined Ultrasonic Transducer (CMUT) Arrays
Andreas Weder, Fraunhofer Institute for Photonic Microsystems (IPMS), DE

→ **14:10 hrs**
Sens-o-Spheres | A concept for location independent acquisition of process measurement signals
Tobias Lüke, Fraunhofer Institute for Electronic Nano Systems ENAS, DE

→ **14:35 hrs**
The Selectivity Measurements of Multi-channel, High Sensitivity Vapor Trace Detection System
Prof. Drago Strle, University of Ljubljana, SL

→ **15:00 hrs**
SoC Low Differential Air Pressure Sensor
Elias Kögel, Chemnitz University of Technology, DE

Glandore Suite

System integration and packaging II

Chairperson: Prof. Dr. Klaus-Dieter Lang, Fraunhofer Institute for Reliability and Microintegration IZM, DE; Prof. Dr. Roland Zengerle, IMTEK, DE

→ **13:45 hrs**
Interposer-based smartcard system with active wireless communication
Fabian Hopsch, Fraunhofer Institute for Integrated Circuits IIS, DE

→ **14:10 hrs**
A novel Wafer level Packaging Method for a Direct-Backside-Exposure Pressure Sensor anodic bonded to a Silicon-Interposer with a thin film Glass Layer
Biswajit Mukhopadhyay, Fraunhofer Institute for Reliability and Microintegration IZM, DE

→ **14:35 hrs**
UV LED costom interconnection for enhanced heat dissipation
Dr. Sabine Nieland, CIS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH, DE

→ **15:00 hrs**
Hybrid sun sensors for pico satellite
Dr. Nenad Marjanovic, CSEM SA, CH

Great Island Ballroom I

EPoSS session II

→ **13:45 hrs – 15:25 hrs**

What's in SSIght? Excellence in Smart Systems Integration

This session, which is co-organised by the EU-funded Coordination and Support Action »inSSIght – In-depth support for innovation and exploitation in Smart Systems Integration«, will look into user needs and requirements towards customer acceptance for smart systems. Furthermore, customer needs will be matched with showcases of innovative smart systems in high potential sectors such as Transportation, Health, Manufacturing, Internet of Things, Energy, Natural Resources, and Security. Presentations by key stakeholders of the smart systems ecosystem will hence not only illustrate the complexity of the topic, but will also introduce tools, support measures and mechanisms that are being deployed to achieve, maintain and demonstrate excellence in smart systems integration.

→ **15:25 hrs – 15:55 hrs** Coffee break

→ **15:25 hrs – 16:25 hrs** POSTER SESSION
The poster presenters will be available at their posters for questions and discussions.

Baltimore Suite

Low cost approaches

Chairperson: Dr. Larraitz Añorga, IK4-Cidetec, ES; Prof. Dr. Reinhard R. Baumann, Fraunhofer Institute for Electronic Nano Systems ENAS, DE

→ **16:25 hrs**
Designing of a semi-transparent Electroluminescent Umbrella
Prof. Kasper Jansen, Delft University of Technology, NL

→ **16:50 hrs**
Chemical Sensors on Paper
Prof. Dr. Yvonne Joseph, TU Bergakademie Freiberg, DE

→ **17:15 hrs**
Manufacturing of all-inkjet-printed electronic devices on flexible polymer substrates
Enrico Sowade, Chemnitz University of Technology, DE

Glandore Suite

Test and reliability

Chairperson: Prof. Dr. Sven Rzepka, Fraunhofer Institute for Electronic Nano Systems ENAS, DE; Dr. Rainer Günzler, Hahn-Schickard-Gesellschaft für angewandte Forschung e.V., DE

→ **16:25 hrs**
Fingerprinting MEMS Gyroscopes
Oliver Willers, Robert Bosch GmbH, DE

NOMINATED BEST PAPER AWARD 2017

→ **16:50 hrs**
Smart Analyzer Systems for Emission Measurements
Dr. Andreas Klug, AVL LIST GmbH, AT

→ **17:15 hrs**
Reliability characterization of aerosol jet printing technology for multilayer secure envelopes
Aurelien Lecavelier, Thales Global Services, FR

Great Island Ballroom I

Perspectives of smart systems

Chairperson: Dr. Eric Moore, University College Cork, Tyndall National Institute, IE

→ **16:25 hrs**
A wafer-level MEMS-LSI integration platform using fly-cut bonding metals customizable for diverse applications
Hideki Hirano, Tohoku University, JP

→ **16:50 hrs**
Single-use paper fuel cells and batteries for disposable Point of Care devices
Prof. Neus Sabaté, Institute of Microelectronics of Barcelona IMB-CNM, ES

→ **17:15 hrs**
Smart Systems Integration in the era of Solid State Lighting
Dr. Willem van Driel, Delft University of Technology / Philips Lighting , NL

→ **19:00 hrs – 22:30 hrs**
Conference dinner
Busses to the conference dinner leave at 18:15 hrs.

Conference program

Thursday, 9 March 2017

Baltimore Suite

Smart systems applications

Chairperson: Dr. Sywert Brongersma, Holst Centre, NL; Ray Speer, Analog Devices, IE

→ **09:00 hrs**
Unobtrusive energy harvesting of human body heat
Moritz Thielen, ETH Eidgenössische Technische Hochschule Zürich ETH Zentrum, CH
NOMINATED BEST PAPER AWARD 2017

→ **09:25 hrs**
3D Ranging and Tracking Using Lensless Smart Sensors
Dr. Lizy Abraham, University College Cork Tyndall National Institute, IE

→ **09:50 hrs**
Development of an Integrated Sensing System for PAT Application in the Food and Beverage Industry
Shauna Scanlon, University College Cork Tyndall National Institute, IE
WINNER BEST POSTER AWARD 2016

→ **10:15 hrs**
Smart System Integration for Digital Water infrastructure
Cees J.M. Lanting, DATSA Belgium, BE

Glandore Suite

New materials for nano structures and devices

Chairperson: Prof. Dr. P. J. French, Delft University of Technology, NL

→ **09:00 hrs**
Nano-composite Materials for Miniaturized Supercapacitors
Qi Li, Chalmers University of Technology, SE
NOMINATED BEST PAPER AWARD 2017

→ **09:25 hrs**
Smart HVAC Sensors for Smart Energy
Dr. Jamila Boudaden, Fraunhofer Research Institution for Microsystems and Solid State Technologies EMFT, DE
NOMINATED BEST PAPER AWARD 2017

→ **09:50 hrs**
Thermoelectric Micropower Source based on Si Nanowires
Dr. Luis Fonseca, Instituto de Microelectrónica de Barcelona IMB-CNM (CSIC), ES

→ **10:15 hrs**
Novel negative tone spray-coatable photoresist for photolithography processing over high topographical steps
Markus Arnold, Chemnitz University of Technology, DE

Great Island Ballroom I

Success stories

Chairperson: Wolfgang Gessner, VDI/VDE Innovation + Technik, DE; Dr. Rolf Slatter, Sensitec GmbH, DE

→ **09:00 hrs**
Metal oxide based smart electronic nose resilient to air humidity changes
Dr. Raimund Leitner, CTR Carinthian Tech Research AG, AT

→ **09:25 hrs**
ENGIDI an ICT solution for Personal Protective Equipment
Dr. Sergio Martínez Navas, LEITAT, ES

→ **09:50 hrs**
Smart Energy Systems Based on Thermopile Array Sensor
Mubeen Abbas, Panasonic Automotive, Industrial Systems Europe GmbH, DE

→ **10:15 hrs**
Personalization of phlebotomy using smart systems integration
Dr. Markus Riester, meisterwerk ventures GmbH, DE

→ **10:40 hrs – 11:10 hrs** Coffee break

The poster presentations and the exhibition are free of charge to all participants, exhibitors and registered visitors.

Great Island Ballroom I

Chairperson: Dr. Eric Moore, University College Cork, Tyndall National Institute, IE; Ray Speer, Analog Devices, IE

→ **11:10 hrs** Keynote IV
Financing Innovative Technology Companies
Gerry Maguire, Atlantic Bridge, IE

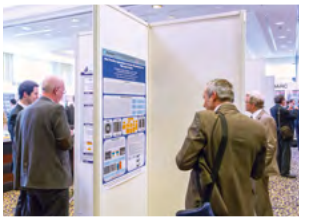
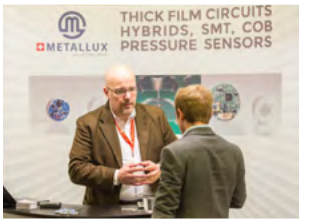
→ **11:40 hrs** Panel discussion
Emerging Trends and Technologies in IoT and Industry 4.0
Moderator: Ray Speer, Analog Devices, IE

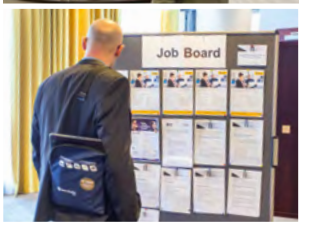
→ **12:30 hrs – 13:30 hrs** Lunch break

→ **13:30 hrs – 14:30 hrs** POSTER SESSION
The poster presenters will be available at their posters for questions and discussions.

→ **14:30 hrs – 15:00 hrs** Coffee break





Conference program

Thursday, 9 March 2017

Baltimore Suite

Smart medtech systems

Chairperson: Dr. Christian Hedayat, Fraunhofer Institute for Electronic Nano Systems, DE; Renzo Dal Molin, SORIN CRM SAS, FR

→ **15:00 hrs**
Implantable wireless pressure sensor
Alfred Binder, CTR Carinthian Tech Research AG, AT

→ **15:25 hrs**
MoniShirt – Large area printed Piezo-electric sensors for body motion tracking
Thomas Knieling, Fraunhofer Institute for Silicon Technology ISIT, DE

→ **15:50 hrs**
Smart system for light treatment of chronic wounds
David Kallweit, CSEM SA, CH

→ **16:15 hrs**
The »Smart« Needle – A Needle Integrated with an Impedance Sensor for Objective Nerve Localisation during Ultrasound Guided Peripheral Nerve Block
Lisa Helen, University College Cork Tyndall National Institut, IE

→ **16:40 hrs**
Design and fabrication of two types of tapered waveguides for evanescent sensing
Yu Xin, TU Delft, NL

Glandore Suite

Manufacturing of smart systems

Chairperson: Dr. Chris Merveille, IKERLAN-IK4, ES; Uwe Schwarz, X-FAB MEMS Foundry GmbH, DE

→ **15:00 hrs**
Roll-to-Roll processed foil inlay as an electrostatic chuck for flexible thin semiconductor wafer handling
NOMINATED BEST PAPER AWARD 2017
Indranil Ronnie Bose, Fraunhofer Research Institution for Microsystems and Solid State Technologies EMFT, DE

→ **15:25 hrs**
Heterogeneous integration of telecom lasers to Si substrates by micro transfer printing
NOMINATED BEST PAPER AWARD 2017
Ruggero Loi, Tyndall National Institute, IE

→ **15:50 hrs**
A Novel Process Module for Inertial Sensor Open Platform Technology
Uwe Schwarz, X-FAB MEMS Foundry GmbH, DE

→ **16:15 hrs**
Development of a patterning process for releasing and sealing of post-CMOS MEMS pressure sensor membranes
Christian Walk, Fraunhofer Institute for Micro-electronic Circuits and Systems, DE

→ **16:40 hrs**
DC-DC Step-down Micromodule with Embedded Inductor for Point-of-load Power Applications
Dragan Dinulovic, Würth Elektronik eiSos GmbH & Co. KG, DE

Great Island Ballroom I

Advanced micro and nano technologies

Chairperson: Prof. Dr. Charles Cané, IMB-CNM (CSIC), ES

→ **15:00 hrs**
Micro-Transfer-Printing for displays based on inorganic LEDs
NOMINATED BEST PAPER AWARD 2017
António José Trindade, X-Celeprint Ltd., IE

→ **15:25 hrs**
An opto-chemical CO2 sensor system based on new Sol-Gel Films
Dr. Andreas T. Winzer, CIS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH, DE

→ **15:50 hrs**
High frequency GaN/Si SAW devices for pressure sensing
Dr. Alexandru Muller, IMT Bucharest, RO

→ **16:15 hrs**
Application of smart microsystem based technology for food, beverage, environment, security and health monitoring
Dr. Eric Moore, University College Cork Tyndall National Institute, IE

→ **16:40 hrs**
Feasibility of manufacturing packaged electronic systems by thermoset injection molding
Romit Ashok Kulkarni, Hahn-Schickard-Gesellschaft für angewandte Forschung e.V. HSG-IMAT, DE

→ **17:05 hrs** End of the conference

Full description of the presentations as well as biographies of the speakers are available at **smartsystemsintegration.com/program**





Poster session

This session is free of charge to all participants, exhibitors and registered visitors!

→ **8 March 2017, 15:25 hrs – 16:25 hrs**
→ **9 March 2017, 13:30 hrs – 14:30 hrs**

Reliable Design of Thermally Actuated RF-MEMS Switch for Operation in Low-Gigahertz Band
Angela Baracu, National Institute for Research and Development in Microtechnologies, RO

Hydrodynamic characterisation of micro-gaps and microchannels for the thermal control of Photonic Integrated Circuits (PICs)
Marian Carroll, Stokes Laboratories, University of Limerick, IE

The Internet of Plants
Oisin Dwane, Tyndall National Institute, IE

Trench Filling With a-Si Using a PE-CVD Deposition and Back Etch Sequence
Linus Elsäßer, Fraunhofer Institute for Photonic Microsystems (IPMS), DE

Novel concept of integrated microactuation of membranes in liquid environments
Tom Enderlein, Fraunhofer Institute for Electronic Nano Systems ENAS, DE

Process Capability and Elastomer Stamp Lifetime in Micro-Transfer-Printing
Dr. Alin Mihai Fecioru, X-Celeprint Ltd., IE

Results of multi-mass high precision vibratory MEMS gyroscopes for two types of system approaches
Dr. Maxim Fedorov, JSC Gyrooptics, Saint-Petersburg, RU

Lead-free piezoelectric MEMS cantilever for energy harvesting – design, optimization and technology
Bogdan Firtat, National Institute for R&D in Microtechnologies, RO

Reliability of thermosonic flip chip bonded pressure sensors with through silicon via
Dr. Thomas Frank, CIS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH, DE

Long-term stability of the assembled silicon strain gauge for precision measurements
Dr. Thomas Frank, CIS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH, DE

Filling of high aspect ratio (AR) nanometer-scale trenches by electrochemical deposition of nickel
Christian Hofmann, Fraunhofer Institute for Electronic Nano Systems, DE

Integration of self-healing agent into MEMS bonding frames
Florian Kurth, Fraunhofer Institute for Electronic Nano Systems, DE

LED packaging with optimized heat dissipation for a micro LED array
Alexander Kusch, Leibniz Universität Hannover, DE

Efficient thermal management of photonic device using micro thermoelectric coolers
Swatchith Lal, University College Cork Tyndall National Institute, IE

Influence of processing atmosphere for QD-LEDs
Jörn Langenickel, Chemnitz University of Technology, DE

INSPEX: Integrated Smart Spatial Exploration System
Dr. Suzanne Lesecq, CEA, LETI, MINATEC Campus, FR

Spatial Localisation via Li-Fi
Brendan Lyden, University College Cork, IE

Development of a Knee Symmetry Analyser for Injury Rehabilitation
James Maher, University College Cork Tyndall National Institute, IE

GIFT: a »Generic Integrated Forensic Toolbox« using a novel micro capillary electrophoresis device for rapid separation and detection of organophosphate nerve agents
Dr. Walter Messina, University College Cork Tyndall National Institute, IE

Detection of mechanical loads in light-weight structures using quantum dots photoluminescence
Martin Möbius, Chemnitz University of Technology, DE

Smart microsystem for dangerous gases detection
Dr. Carmen Moldovan, IMT-Bucharest, RO

Interface Power-Transfer Conditions for Piezoelectric Energy Harvesting on Damped Waves
Martin Nielsen-Lönn, Linköping University, SW

TIPS: Thermally Integrated Smart Photonic Systems
Dr. Cian Ó Murchú, University College Cork Tyndall National Institute, IE

Thermo-Mechanical and Mechanical Robustness of the INCOBAT Smart Battery Management System
Alexander Otto, Fraunhofer Institute for Electronic Nano Systems, DE

Robust vibration sensor for condition monitoring in railway applications
Michael Pleul, Chemnitz University of Technology, DE

Transfer Printing of Photovoltaic Power Converter
David Quinn, Tyndall National Institute, IE

Open IoT platform for luminary controls
Jordi Ricart, LEITAT, ES

IR Imaging of Laser Structures for Thermal Control of Photonics Integrated Circuits (PICs)
Niamh Richardson, Stokes Laboratories, University of Limerick, IE

Developing Smart Sensing Systems for the Detection of Nutrients in Water
Patrick Roche, T.E. Laboratories Ltd., IE

Development of sensor integration concept for mass production processes
Florian Rost, Fraunhofer Institute for Electronic Nano Systems, DE

Effective viscoelastic plastic material modeling for faster and reliable calculations
Florian Schindler-Saefkow, Fraunhofer Institute for Electronic Nano Systems, DE

Inductive temperature measurement for fast and optimized adhesive curing
Dominik Schröder, Fraunhofer Institute for Electronic Nano Systems, DE

Increase of functional density of hybrid structures by integration of micro and nano systems
Martin Schüller, Fraunhofer Institute for Electronic Nano Systems, DE

Identification and Traceability matter in electronics
Gernot Seeger, Beta LAYOUT GmbH, DE

Investigations on Parylene C for its Integrability into MEMS
Franz Selbmann, Fraunhofer-Institut für Elektronische Nanosysteme, DE

Supercapattery: A Hybrid Energy Storage Device for the Next Generation Pacemaker
Han Shao, Tyndall National Institute, IE

Smart sensor for pneumatic combined clutch and brake
María Tijero, Ikerlan-IK4, ES

Does this water make you sleepy? Testing in-situ Chloroform presence in drinking water
Dr. Patricia Vazquez, University College Cork Tyndall National Institute, IE

Optical Power Supply for an integrated RF Communication Module
Christoph von der Ahe, Leibniz Universität Hannover, DE

Wide-Field Epiretinal Stimulator with Adjustable Curvature
Florian Waschkowski, RWTH Aachen, DE

Low-Cost Antenna Efficiency Measurement System for Smart System Antenna Efficiency Characterization
Mark Whooley, Tyndall National Institute, IE

Micro Sensor for Detecting the Direction of Incoming Light
Dr. Andreas T. Winzer, CIS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH, DE

Committee list

Conference chair
Prof. Dr. T. Otto, Fraunhofer ENAS, DE

Co-chair
Dr. G. Lugert, Siemens, EPoSS, DE

Local co-chair
Dr. E. Moore, University College Cork, Tyndall National Institute, IE
R. Speer, Analog Devices, IE

Scientific committee
L. Añorga, CIDETEC, ES
R. Aschenbrenner, Fraunhofer IZM, DE
Prof. Dr. R. R. Baumann, Fraunhofer ENAS, DE
Prof. Dr. Dr. K. Bock, TU Dresden, DE
Dr. C. Bosshard, CSEM, CH
Dr. S. Brongersma, Holst Centre, IMEC, NL
Dr. B. Candaele, Thales, FR
Prof. Dr. C. Cané, Centro Nacional de Microelectrónica (CNM-IMB), ES
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M. Desmulliez, Heriot-Watt University, UK
K. Dyrbye, Grundfos Holding, DK
Dr. S. Finkbeiner, Bosch Sensortec, DE
Prof. Dr. P. J. French, Delft University of Technology, NL
U. Gäbler, Infineon, DE
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Dr. R. Günzler, Hahn-Schickard-Gesellschaft für angewandte Forschung, DE
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Registration

Registration fees

	Until 31 January 2017	From 1 February 2017
Full conference	1,095 EUR	1,195 EUR
Full conference university staff and research institutes staff*	675 EUR	830 EUR
Full conference students	360 EUR	360 EUR
One conference day	645 EUR	720 EUR
Conference dinner	95 EUR	95 EUR
Pre-conference field trip	50 EUR	50 EUR

*University staff, research institute staff and students may only register for the full conference at special rates and must enclose a copy of their university/ research institute ID-card.

For registration on-site a last-minute-fee of 30 EUR becomes due.
All fees plus legal VAT.

Registration terms

Registration for Smart Systems Integration 2017 is binding and only accepted online at **smartsystemsintegration.com/registration.** Participation fees are due upon registration with payment by credit card (VISA, Master/Eurocard and Amex) via the Saferpay gateway. An invoice for the fees will be issued by mail. Please note participation is only allowed after full payment. Once the registration process is complete, you will receive an email registration confirmation including an entry voucher to the conference, please make sure to bring this along. Your conference documents will be issued on-site at the conference counter.

Cancellations will be accepted in writing only. Cancellations received by Mesago by 31 January 2017 will incur a processing fee of 85 EUR. Thereafter if the participant does not attend, the full fee will be due. If a participant is unable to attend, a substitute can be nominated. Mesago reserves the right to cancel the conference due to poor bookings or other reasons beyond our control. No further claims beyond the reimbursement of participation fees already paid will be accepted. The program or speakers are subject to change and no claims may be made in this respect.

The conference language is English.

Conference package

The conference fee includes participation in the conference parts booked, proceedings (USB-stick), lunch on the days registered, coffee breaks and free admission to the exhibition, the poster sessions and the special session by EPoSS.

Opening hours registration counter

The conference counter will open 1 hour before the beginning of the conference.

Venue

Radisson BLU Hotel & Spa
Ditchley House
Little Island Business Park
Cork, Ireland
radissonblu.com/en/hotel-cork

Accommodation and travel

The Radisson BLU Hotel & Spa Cork is located in the heart of East Cork, near the city center. Little Island Rail Station, which offers regular bus and train connections, is close to the hotel. The airport and Cork city center are just 15 minutes away. Detailed information as well as a list of hotels with special rates is available at **smartsystemsintegration.com/travel**

At a glance

Exhibition

The SSI conference is accompanied by an exhibition.
To have a look at the exhibitors please visit
smartsystemsintegration.com/exhibitorlist

Visitors

Pre-registered visitors gain free entry to the exhibition as well as free access to the Keynotes, special sessions by EPoSS and the poster sessions!
Take advantage of the opportunity and register now as visitor at **smartsystemsintegration.com/tickets**

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