


AGENDA - WEDNESDAY, APRIL 27

08:00 Registration					
08:45 TITANE 2 Welcome (Stefan Finkbeiner, Thomas Otto)					
Keynote I - III Chairs: Stefan Finkbeiner					
09:10 Keynote I: Bert De Colvenaer (Executive Director) KDT Joint Undertaking: <i>From ECSEL to KDT to CHIPS JU</i>					
09:40 Keynote II: Laurent Remont (VP Sensor Solutions) Infineon Technologies: <i>Sense-compute-connect-power: a holistic sensor system approach to enable greener, easier and safer life</i>					
10:10 Keynote III: Oliver Faynot, Silicon Department Head of CEA-Leti: <i>Overcoming the Data Deluge Challenges with Greener Electronics</i>					
10:40 - 11:05 Coffee break PALLADIUM					
TITANE 2 Session 1 Track I Key Enablers for Smart Systems of Next Generation Modelling and advanced processing I (for device fabrication and integration) Chairs: <u>Louis Fonseca</u> & <u>Wolfgang Dettmann</u>		CHROME 1 Session 2 Track II Key Technologies for Smart Systems Smart Hardware Solutions Chairs: <u>Paddy French</u> & <u>Jean-Philippe Polizzi</u>		 CHROME 2-3 Session 3 Track V Strategy and Business Creation Photonics integration: How to bring these worlds together? Chairs: <u>Elisabeth Steimetz</u> & <u>Thomas Dietrich</u>	
11:05	High-resolution projection lithography for MEMS-applications using thick photoresist AZ® 10XT Sebastian Schermer Fraunhofer ENAS, Germany	11:05	Parametrically Generated FE Models for the Design for Reliability of Classical and Embedded Power Modules Kshitij Kolas Fraunhofer ENAS, Germany	11:05	Heterogeneous integration and 3D technologies for silicon photonics Eléonor Hardy CEA Leti, France
				11:25	EU actions on photonics integrated circuits Werner Steinhögl European Commission; DG CNECT
11:30	Novel Approach to Deposit Conductive and Insulating Features at Micrometer Scale for Manufacturing of Smart Systems Łukasz Kosior XTPL SA, Poland	11:30	Design of a MEMS-based fully passive wireless pressure sensor for harsh environments Romain Alcesilas CEA Leti, France	11:40	Augmented silicon photonics, with integrated lasers, the ultimate integration of photonic system, optimized for co-packaging Yannick Paillard Scintil Photonics
				11:55	Silicon Photonics, beyond the tipping point Eric Mounier Yole, France
11:55	Precision Fluid Deposition of Nanostructured Photonic Layers Thomas Blaudeck TU Chemnitz, Germany	11:55	Impact of Cell Arrangement and Medium on Acoustic Crosstalk in CMUT – A FEA Study Dhruvin Darji TU Chemnitz, Germany	12:10	Photonics integration opportunities and challenges from industries perspective Lucas Ginzinger Bosch Sensortech, Germany
				12:25 - 12:50	All speakers Q&A and Panel discussion
12:20 - 13:30 Lunch break PALLADIUM					
TITANE 2 Session 4 Track I Key Enablers for Smart Systems of Next Generation Modelling and advanced processing II (for device fabrication and integration) Chairs: <u>Wolfgang Dettmann</u> & <u>Louis Fonseca</u>		CHROME 1 Session 5 Track II Key Technologies for Smart Systems Smart Hardware Solutions II Chairs: <u>Sywert Brongersma</u> & <u>Paddy French</u>		 CHROME 2-3 Session 6 Track V Strategy and Business Creation SME & Start-up engagement in European Projects: how to improve participation further? Chairs: <u>Roland Dörr</u> & <u>Laure Quintin</u>	
13:30	Die-to-die alignment for lithographic processing of reconstructed wafers Jeroen de Boeij Kulicke & Soffa Liteq BV, Netherland	13:30	Smart industrial sensor solution concept Natale Testa STMicroelectronics, Italy	13:30	European Digital Innovation Hubs & their activities for SMEs Rainer Günzler Hahn-Schickard
13:55	The role of disorder in elementary photonic components - theoretical and experimental considerations Thomas Blaudeck TU Chemnitz, Germany	13:55	Design, simulation, and analysis of a physical unclonable function based on MEMS AIN cantilevers Saeed Abdolnizhad Offenburg University Of Applied Sciences, Offenburg, Germany	13:45	SME pitches Gonzalo Murillo Energiot Device Renauld De Langlade NovaPack Łukasz Kosior XTPL Caterina Taballone QuiX Quantum B.V.
14:20	Smart energy management of closed customized wet workbenches by active smart sensor-actuator systems Florian Kuhl MK Versuchsanlagen und Laborbedarf e.K., Germany	14:20	Smartfarming in vertical gardens Guido Colombo Orchestra srl, Italy	14:20	What regional clusters do to better involve SMEs in EU funding schemes Ben van der Zon HighTech NL
				14:35 - 15:00	Panel discussion with representatives from regional clusters
14:45 - 15:15 Coffee break PALLADIUM					
MAIN ROOM TITANE 2					
15:15 - 16:00 Poster and demonstrator pitches; Chair: Christian Wagner / Martina Vogel					
16:00 - 16:45 Topic Tables: Pact4Skills - Exchange of experiences KDT Funding opportunities					
TITANE 2 Session 7 Track I Key Enablers for Smart Systems of Next Generation Sensor devices and systems I Chairs: <u>Matthias Kuehnel</u> & <u>Sywert Brongersma</u>		CHROME 1 Session 8 Track II Key Technologies for Smart Systems Embedded Intelligence Chairs: <u>Christoph Koeqler</u> & <u>Harald Kuhn</u>		 CHROME 2-3 Session 9 Track V European Projects	
16:45	Touch Sensor Based on Highly Compressive Magnetic Foam Composite Gildas Diguët Tohoku University Sendai, Japan	INVITED 16:45	Embedded artificial intelligence approach for gas recognition in smart agriculture application using low cost MOX gas sensors Claudia Bruno Università degli Studi di Catania, Italy	16:45	Developing Entrepreneurship within the Joint International Master Programme in Smart Systems Integrated Solutions Márta Rencz Budapest University of Technology and Economics, Budapest, Hungary
17:10	Gas sensing with capacitive micromachined ultrasound transducers Charles Boutonnet CEA-Leti, France	17:10	Software building blocks for gas sensors using artificial intelligence at the edge Aibin Paul Lazar Bosch Sensortec, Germany	17:10	Project ASCENT Giorgos Fagas Tyndall National Institute
17:35	High Precision Liquid Level and Leak Detection Based on Capacitive Micromachined Ultrasound Transducer Nooshin Saeidi Fraunhofer ENAS, Germany	17:35	A Security Outlook On Embedded Device Development Paulo Martinez Siemens, Germany	17:35	Project NEURONN Aida Todri-Sanial CNRS, France
18:00 Grenoble sightseeing tour					
20:00 Conference Dinner at Maison MINATEC					

AGENDA - THURSDAY, APRIL 28

08:00	Registration, Conference location open			
TITANE 2 Keynote IV - V Chairs: Thomas Otto, Stefan Finkbeiner				
09:00	Keynote IV: Andrea Onetti, Executive Vice President, ST Microelectronics Srl, Italy: <i>Making micromirrors system integration friendly: thin-film piezo technology</i>			
09:30	Keynote V: Harald Kuhn, director Fraunhofer ENAS, director Center for Microtechnologies at TU Chemnitz, Fraunhofer ENAS, Germany: <i>Smart Systems will create the future</i>			
10:00	Presentation of the Thomas Gessner Award + announcement best poster award			
10:30 - 11:00 Coffee break PALLADIUM				
TITANE 2 Session 10 Track III Application Domains: Mobility, Energy, Industry Smart Systems for Monitoring and Control Chairs: Antonio Lionetto & Harald Pötter		CHROME 1 Session 11 Track IV Application Domains: Food, Biomedical, Healthy Living Smart Sensing Platform for Biomedical Application Chairs: Rainer Guenzler & Han Shao		CHROME 2-3 Session 12 Track I Key Enablers for Smart Systems of Next Generation Sensor devices and systems II Chairs: Jean-Philippe Polizzi & Matthias Kuehnel
11:00	Cascaded H-Bridge Multilevel Inverter With a Distributed Control System for Solar Applications Thibault Bertin Rivière De La Souchère CEA-Leti, France	11:00	Modelling and on-chip detector design for a MEMS Photoacoustic System Akash Gupta Hahn-Schickard-Gesellschaft für angewandte Forschung e.V., Germany	INVITED 11:00 Lightweight spike-domain beamforming applied to pMUT signals for ultrasonic-based gesture recognition Bruno Fain CEA-Leti, France
11:25	A Smart Battery Free System For Wireless Condition Monitoring Using Piezoelectric Energy Harvester Namanu Panayanthatta Imep Lahc, France	11:25	Miniaturized and Highly Integrated Humidity Sensor With Biocompatible Sensing Material for Smart Farming Moritz Schlagmann Infineon Technologies AG, Germany	11:25 Stress Impedance Effect MEMS Sensors with Very High Gauge Factor Joerg Froemel Tohoku University Sendai, Japan
11:50	The Mobility Scenario vs Green Deal Objectives Antonio Imbruglia ST Microelectronics, Italy	11:50	AEFishBit: a smart system to monitor fish activity and welfare Manuel Lozano CSIC, Spain	11:50 Backscattered visual light positioning using LED sensing in combination with edge computing based artificial neural network classification Andreas Peter Weiss Joanneum Research, Austria
12:15	High-G Acceleration Sensors for the Automotive Industry Sebastian Pregl Infineon Technologies, Germany	12:15	Effect of Surface Uniformity and Droplet Volume on Actuation Voltage of PCB Based EWOD Microfluidic System Wail Al-Mogahed TU Chemnitz, Germany	12:15 Functional CMOS extension with integrated carbon nano devices Simon Boettger TU Chemnitz, Germany
12:40 - 13:30 Lunch break PALLADIUM				
Exhibition area				
13:30 - 14:45 Networking session in the poster and exhibition area with coffee				
	TITANE 2 Session 13 Track III Application Domains: Mobility, Energy, Industry Smart Systems in Energy, Mobility and Industry sectors Chairs: Kari Maki & Antonio Lionetto	CHROME 1 Session 14 Track IV Application Domains: Food, Biomedical, Healthy Living Smart Systems for Diagnostics and Monitoring in Health Care Chairs: Norman Kachel & Rainer Guenzler	CHROME 2-3 Session 15 Track II Key Technologies for Smart Systems Embedded Intelligence II Chairs: Harald Kuhn & Christoph Koegler	
14:45	HydroZest: embedded AI for predictive maintenance Olivier Chevalerias CATIE, France	INVITED 14:45	The monitoring of neurological disease Napoleon Torres CEA LETI CLIMATEC, France	14:45 On Trustworthy Scalable Hardware/Software Platform Design Friedrich Pauls Barkhausen Institut gGmbH, Germany
15:10	Predictive Maintenance for Automated Material Handling Systems Hans Klingstedt Smart Systems HUB, Germany	15:10	Real-time Thermographic Object Tracking of the Body Temperature of a Neonate Kianoush Rassels TU Delft, Netherlands	15:10 Deep System for physio-to-sobriety augmented driving risk assessment in next generation cars Francesco Rundo ST Microelectronics, Italy
15:35	Nonlinear Model Predictive Control for Lifetime Extension of Self-Reconfigurable Battery Jérôme Blatter CEA Liten, France	15:35	Standardized noble metal electrodes integrated on CMOS technologies for medical applications Christine Dufour X-FAB, Germany	15:35 A Methodology for fast data analysis on edge devices Ronny Schwabe Fraunhofer IIS/EAS, Germany
16:00	Smart Domain-Adapted Visual Saliency Perception In Advanced Driver Motion-Assisted System Francesco Rundo ST Microelectronics, Italy	16:00	Bio-Remote Sensing in Predicting Infection in Neonates with Thermal Imaging and Machine Learning Kianoush Rassels TU Delft, Netherlands	
16:25 End of conference				