

**EUROSENSORS2016 PROGRAM**  
**Monday - September 5, 2016**

**PLENARY LECTURES, Room1:"PATRIA"**

<b>Presentation time</b>	<b>Presentation code</b>	<b>Paper Title</b>	<b>Authors list</b>	<b>Affiliations</b>
9.15-10.00	ML.PLENARY-1	From Wearables to Implantables: Enabling Next-Generation Health Monitoring	Mike McShane	Departments of Biomedical Engineering & Materials Science and Engineering Texas A&M University
10.00-10.45	ML.PLENARY-2	Sensors for automobiles and Upcoming Technologies	Yutaka Nonomura	Department of Mechatronics Engineering Meijo University, Japan
11.15-12.00	ML.PLENARY-3	The role of sensing in Cisco's Digital Ceiling	John Baekelmans	CTO, Internet of Everything Solutions Group Cisco Systems Inc, UK
12.00-12.45	ML.PLENARY-4	LTCC and thick-film ceramic magnetic sensors for tokamak nuclear fusion	Thomas Maeder(a,*), Caroline Jacq(a), Duccio Testa(b), Matthieu Toussaint(b), Martin Stöck(a,b), Adrien Corne(a,b), Lucas Güniat(a,b), Benoît Ellenrieder(a,b), Xinyue Jiang(a), Philipp Windischhofer(a,b), Christian Schlatter(b), Peter Ryser(a)	(a) Laboratoire de Production Microtechnique, EPFL, CH-1015 Lausanne, Switzerland (b) Swiss Plasma Center, EPFL, CH-1015 Lausanne, Switzerland

### Chemical sensors I., Gas sensors Room1:"PATRIA"

Presentation time	Presentation code	Paper Title	Authors list	Affiliations
14.00-14.20	ML.CHM-1-8507	Gas composition sensor for natural gas and biogas	Arjen Boersma (a,*), Jörgen Sweelsen (a), Huib Blokland (b)	(a) TNO, De Rondom 1, 5612AP Eindhoven, The Netherlands (b) TNO, Leeghwaterstraat 44, 2628 CA Delft, The Netherlands
14.20-14.40	ML.CHM-2-8546	Detection of gaseous ethanol by the use of ambient temperature platinum catalyst	J.K Boerman (a), M.L. Bauersfeld (b), K. Schmitt (b), J. Wöllenstein (b,c,*)	(a) Environmental Monitoring Systems (EMS) B.V., Sint-Annaland, The Netherlands (b) Fraunhofer Institute for Physical Measurement Techniques IPM, Freiburg, Germany (c) Department of Microsystems Engineering - IMTEK, University of Freiburg, Freiburg, Germany
14.40-15.00	ML.CHM-3-8144	Nickel Doped Wo3 nanoneedles Deposited by a Single Step AACVD for Gas Sensing Applications	Toni Vilic, Eduard Llobet(*)	MINOS-EMaS, Departament d'Enginyeria Electrònica, Universitat Rovira i Virgili, Tarragona, Spain
15.00-15.20	ML.CHM-4-8298	Enhancement of MEMS Based Ga2O3 Gas Sensors by Surface Modifications	R. Pohle (a,*), E. Weisbrod (a,b), H. Hedler (a)	(a) Siemens AG, Corporate Technology, Munich, Germany (b) University of Applied Sciences, Munich, Germany
15.20-15.40	ML.CHM-5-8623	SiC-FET sensors for selective and quantitative detection of VOCs down to ppb level	M. Andersson (a,b,d), M. Bastuck (c), J. Huotari (b), A. Lloyd Speitz (a,b), J. Lappalainen (b), A. Schütze(c), D. Puglisi (a,*)	(a) Div of Applied Sensor Science, IFM, Linköping University, SE-581 83 Linköping, Sweden, (b) Thin Films and Nanostructures, Molecular Materials, University of Oulu, FI-900 14 Oulu, Finland, (c) Lab for Measurement Technology, Saarland University, DE-660 41 Saarbrücken, Germany, (d) SenSiC AB, Isafjordsgatan 39B, SE-164 40 Kista, Sweden
15.40-16.10	MKeynote.CHM-6-8009	Forty Years of Adventure with Semiconductor Gas Sensors	János Mizsei (*)	Budapest University of Technology and Economics, Department of Electron Devices, Magyar Tudósok krt. 2., Budapest 1117, Hungary

### Information on EU funding programs, Room1:"PATRIA"

Presentation time	Presentation code	Paper Title	Authors list	Affiliations
16.45-17.10	-	ERC - Funding opportunities in Europe for creative minds from anywhere in the world	Telma Carvalho	Research Programme Officer Panel Coordinator PE7: Systems and Communication Engineering European Research Council Executive Agency ERCEA.B4 - Physical Sciences and Engineering
17.10-17.35	-	Sensors Enabling Smart Systems: Giving Sense to EU Support	Willy Van Puymbroeck	Head of Unit European Commission DG CONNECT Unit A3 - Competitive Electronics Industry
17.35-18.00	-	Europractice services and the first user stimulation program	Romano Hoofman	Strategic Development Director IMEC Leuven

## Actuators, Room2:"BARTOK"

Presentation time	Presentation code	Paper Title	Authors list	Affiliations
14.00-14.20	ML.ACT-1-8077	Direct Torsion of Bulk PZT Using Directional Interdigitated Electrodes	Inbar (Hotzen) Grinberg, Nadav Maccabi, Adne Kassie, Shai Shmulevich, David Elata (*)	Technion-Israel Institute of Technology, Haifa 32000, Israel
14.20-14.40	ML.ACT-2-8163	Electrostatic Actuation to Counterbalance the Manufacturing Defects in a MEMS Mass Detection Sensor Using Mode Localization	V. Walter (*), G. Bourbon, P. Le Moal, N. Kacem, J. Lardiès	FEMTO-ST, Department of Applied Mechanic, University of Bourgogne Franche-Comté, Besançon, France
14.40-15.00	ML.ACT-3-8250	Feedback Driven Fast Piezoelectric Micro-Lens Actuator	A. Michael (*), S. S. Chen, and C. Y. Kwok	School of Electrical Engineering and Telecommunication, UNSW AUSTRALIA, Sydney, Kensington 2052, AUSTRALIA
15.00-15.20	ML.ACT-4-8545	Plano-convex variable focal length micro-lens with a polymer nanocomposite actuator	Boscij Pawlik, Andreas Rieck, Florenta Costache (*)	Fraunhofer Institute for Photonic Microsystems, Maria-Reiche-Str. 2, 01109 Dresden, Germany
15.20-15.40	ML.ACT-5-8072	Development of Haptic Button Based on Electro Active Polymer Actuator	P. Poncelet (a, b, *), F. Casset (a, b), A. Latour (a, c), F. Domingues Dos Santos (d), R. Gwoziecki (a, c), S. Fanget (a, b)	(a) Univ. Grenoble Alpes, F-38000 Grenoble, France (b) CEA-LETI, MINATEC Campus, 38054 Grenoble, France (c) CEA, LITEN, DTNM, LCEI, F-38054 Grenoble, France (d) ARKEMA-PIEZOTECH, F-69493 Pierre Benite, France
15.40-16.00	ML.ACT-6-8154	Control of a Hydrogel-Based Thermal Actuator in Closed-Loop Configuration	Kangfa Deng, Guorui Mu, Margarita Guenther, Gerald Gerlach (*)	Institute for Solid State Electronics, Technische Universität Dresden, D-01062 Dresden, Germany

### Microfluidics I., Processes, Room3: "LISZT"

Presentation time	Presentation code	Paper Title	Authors list	Affiliations
14.00-14.20	ML.FLU-1-8399	Inkjet 3D printing – studies on applicability for lab-on-a-chip technique	Rafał Walczak, Krzysztof Adamski, Aleksandra Pokrzywnicka, Wojciech Kubicki	Wrocław University of Science and Technology, Faculty of Microsystems Electronics and Photonics, 50372 Wrocław, Poland
14.20 - 14.40	ML.FLU-2-8140	A Multi-Nozzle Electrospray Emitter for Pneumatically Assisted Electrospray in LC-MS Analysis	L. Kempen (1,*), R. Hartmer (2) , A. Brekenfeld (2) , A. Holle (2) , W. Lang (1)	(1) University of Bremen, Institute for Microsensors, -actuators and -systems, Germany (2) Bruker Daltonik GmbH Bremen, Germany (* ) now with the City University of Applied Sciences Bremen, Germany
14.40-15.00	ML.FLU-3-8258	Integration of Capillary and EWOD Technologies for Autonomous and Low-Power Consumption Micro-Analytical Systems	Marco Nardecchia (a,b,*), Enrica Bellini (b), Pablo R. Llorca (c), Davide Caprini (c), Nicola Lovecchio (b), Giulia Petrucci (b), Giampiero de Cesare(b), Augusto Nascetti (a)	(a) S.I.A., University of Rome "La Sapienza", Via Salaria 851/881, 00138 Rome, Italy (b) D.I.E.T., University of Rome "La Sapienza", Via Eudossiana 18, 00184 Rome, Italy (c) D.I.M.A., University of Rome "La Sapienza", Via Eudossiana 18, 00184 Rome, Italy
15.00-15.20	ML.FLU-4-8420	Nano- and Microfluidic Channels As Electrokinetic Sensors and Energy Harvesting Devices - Importance of Surface Charge on Solid-Liquid Interfaces	Pal Arki (*), Christine Hecker, Frederic Güth, Yvonne Joseph	Institute of Electronic and Sensor Materials, Technische Universität Bergakademie Freiberg, Gustav-Zeuner Str. 3. 09599, Freiberg, Germany
15.20-15.40	ML.FLU-5-8277	Development and Characterization of a Miniaturized Flame Ionization Detector in Ceramic Multilayer Technology for Field Applications	C. Lenz (a,*), H. Neubert (a), S. Ziesche (a), J. Förster (b), C. Koch (b), W. Kuipers (b), M. Deilmann (b), D. Jurkow (c)	(a) Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Winterbergstraße 28, Dresden 01277, Germany (b) KROHNE, Ludwig-Krohne Straße 5, Duisburg 47058, Germany (c) VIA electronic, Robert-Friese Straße 3, Hermsdorf 07629, Germany
15.40-16.10	MKeynote.FLU-6-8207	Environmental Pollutant Sensing on a Paper-Based Microfluidic Platform	S.D. Kolev	School of Chemistry, The University of Melbourne, Melbourne, Victoria 3010, Australia

## Embedded Systems, Room4: "LEHAR"

Presentation time	Presentation code	Paper Title	Authors list	Affiliations
14.00-14.20	ML.EMB-1-8455	Non-electrical sensing and storing an alternative to electrical energy harvesting	M. Hoffmann (a,*), K.Wedrich (a), P. Schmitt(a), H. Mehner (a), R. Jurisch (b)	(a) Micromechanical Systems Group, IMN MacroNano®, Technische Universität Ilmenau, Germany (b) microsensys GmbH, Erfurt, Germany
14.20 - 14.40	ML.EMB-2-8594	Comparison on powering passive sensor RFID via variation of modulation indexes	Peter Kuhn (*), Philip Schmidt, Frederic Meyer, Anton Grabmaier	Fraunhofer Institute for Microelectronic Circuits and Systems IMS, Finkenstr. 61, Duisburg 47057, Germany
14.40-15.00	ML.EMB-3-8438	A High-Efficiency Thermoelectric Module with Phase Change Material for IoT Power Supply	K. Nakagawa (*), T. Suzuki	FUJITSU LABORATORIES LTD. Atsugi, Japan
15.00-15.20	ML.EMB-4-8394	In-situ biogas sensing system for enabling spatially resolved online determination of the gas composition of the fermenter	Benedikt Bierer, Alvaro Ortiz Perez, Jürgen Wöllenstein, Stefan Palzer(*)	Department of Microsystems Engineering – IMTEK, Laboratory for Gas Sensors, University of Freiburg, Georges-Köhler-Allee 102, 79110 Freiburg, Germany
15.20-15.40	ML.EMB-5-8473	Integration of piezoelectric nanowires matrix onto a microelectronics chip	E. Saoutieff (*), M. Allain, Y-R. Nowicki-Bringuier, A.Viana, E. Pauliac-Vaujour	Université Grenoble Alpes, CEA, LETI, MINATEC Campus, F-38054 Grenoble, France
15.40-16.00	ML.EMB-6-8107	A 2:1 Mux Based on Multiple MEMS Resonators	M. A. A. Hafiz (a,*), L. Kosuru (b), M. I. Younis (b) and H. Fariborzi (a)	(a) CEMSE Division, King Abdullah University of Science and Technology, Thuwal 23955-6900, KSA (b) PSE Division, King Abdullah University of Science and Technology, Thuwal 23955-6900, KSA