

## MMS2015 PROGRAM

### MAY 11 - REGION/COUNTRY REVIEWS

part I	Chair: Thomas Gessner	
09:00 - 09:20	Opening session	Thomas Gessner, Senat Berlin
09:20 - 09:35	Country review Australia	Dwayne Kirk
09:35 - 09:50	Country review Benelux	Albert van den Berg
09:50 - 10:05	Country review China	Rong Zhu
10:05 - 10:20	Review European Commission	Henri Rajbenbach
10:20 - 10:35	Country review France	Michel de Labachellerie
10:35 - 11:00	Coffee break	
part II	Chair: Phillippe Fischer	
11:00 - 11:15	Country review Germany	Thomas Gessner
11:15 - 11:30	Review Iberia	Carles Cané
11:30 - 11:45	Country review Italy	Paolo Dario
11:45 - 12:00	Country review Japan	Isao Shimoyama
12:00 - 12:15	Country review Korea	Tae Song Kim
12:15 - 12:30	Review Latin America	Jacobus Swart
12:30 - 13:00	Photo session	
13:00 - 14:00	Lunch	
part III	Chair: Paolo Dario	
14:00 - 14:15	Review Nordic	Per Øhlckers
14:15 - 14:30	Country review Romania	Alexandra Stefanescu
14:30 - 14:45	Country review Russia	Denis Urmanov
14:45 - 15:00	Country review Singapore	Jianmin Miao
15:00 - 15:15	Country review Switzerland	Philippe Fischer
15:15 - 15:30	Country review Taiwan	Yu-Cheng Lin
15:30 - 15:45	Country review USA	Michael Gaitan
15:45 - 16:15	Coffee break	
16:15 - 17:00	Internet of Things	Torsten Thieme (memsfab)/Thomas Gessner (Fraunhofer ENAS)
18:00 - 23:00	River cruise & dinner	

## MMS2015 PROGRAM

### MAY 12 - TECHNICAL PRESENTATIONS

09:00 - 10:15	Manufacturing	Chair: Isao Shimoyama	
09:00	Manufacturing smart systems in Europe	Henri Rajbenbach	European Commission
09:15	State of current international activities of European SME MEMS companies, challenges and prospects	Uwe Kleinkes	Hochschule Hamm-Lippstadt
09:30	Next frontiers of sensing: from standalone to context awareness capabilities	Nunzio Abbate	STMicroelectronics
09:45	Microfabrication technologies and microassembly for smart actuators	Arianna Menciassi	Scuola Superiore Sant'Anna
10:00	Foundry technologies: from MEMS to NEMS	Vincent Gaff	Tronics Microsystems
10:15 - 10:45	Coffee break		
10:45 - 12:30	Industrial automation	Chair: Dwayne Kirk	
10:45	Robust sensor nodes for industrial automation	Harald Pötter	Fraunhofer IZM
11:00	Micro-machined based electro-chemical vibration sensor and its applications	Junbo Wang	Institute of Electronics, CAS
11:15	Industry 4.0 - Application of self navigating robots in complex semiconductor production	Heinz Martin Esser	Roth & Rau - Ortner GmbH
11:30	The long path to improve performance of the micromachined inertial sensors	Honglong Chang	Northwestern Polytechnical University
11:45	Smart bio-inspired visual sensors for robotics	Stéphane Viollet	CNRS, Institute of Movement Sciences
12:00	Smart Factory: An intelligent combination of sensors, automation technology and high-tech production equipment	Thomas Dietrich	IVAM
12:15	Critical success factors for the commercialization of MEMS	Roger Grace	Roger Grace Associates
12:30 - 14:00	Lunch		



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### MAY 12 - TECHNICAL PRESENTATIONS

14:00 - 15:45	Innovation centers	Chair: Michael Gaitan	
14:00	Advancement of emerging technologies through public-private partnership programs	Dan Holladay	CAMF, UCF
14:15	Swiss Advanced Manufacturing Research Center - SAMARC	Philippe Fischer	FSRM
14:30	Argentinian NANOFAB Services: From Nanotech to IoT for smart factory	Daniel Lupi	Nanotechnology foundation, Buenos Aires
14:45	Mechatronic cluster established in Rovereto, focused on smart manufacturing	Massimo Gentili	FBK-Materials e Microsystems Center
15:00	Nano/MEMS Open Innovation Center in Japan	Takashi Mihara	Micromachine Center
15:15	Nordic cooperation in the Nordic NanoLab Network	Kay Gastinger	NTNU NanoLab
15:30	From nanotech research facility to high tech factory production facility	Janneke Hoedemaekers	MESA+ Institute, University Twente
15:45 - 16:15	Coffee break		
16:15 - 17:45	Special applications of MEMS	Chair: Carles Cané	
16:15	Smart systems for health monitoring of electronics micromanufacturing chain	Dumitru Ulieru	SITEX 45 SRL
16:30	Highly integrated LoC Systems: Application and Fabrication aspects	Thomas Otto	Fraunhofer ENAS
16:45	Lab-on-a-Chip Design & Foundry Service	Roland Zengerle	Hahn-Schickard, Freiburg
17:00	Lab in a droplet: On-demand digital microfluidics for on-chip bioscreening	Tuncay Alan	Monash University Mechanical and Aerospace Engineering Dept
17:15	A parametric thermal simulation model for a noninvasive blood glucose sensor	Per Ohlckers, M. Nadeem Akram and Asmat Nawas	Buskerud and Vestfold University College, Horten, Norway
17:30	Microtechnologies meet agro-food: an european clustering action	Leandro Lorenzelli	FBK – Center for Materials and Microsystems
19:00	Dinner		

## MMS2015 PROGRAM

### MAY 13 - TECHNICAL VISIT

09:00	Start of technical tour (by bus)	Hotel Lobby
09:30 - 11:45	Arrival Fraunhofer IZM, guided tours	
11:45 - 12:30	Lunch (small buffet)	
12:30	Departure	
13:30 - 15:30	Arrival First Sensor AG, guided tours	
15:30 - 16:00	Coffee break	
16:00	Departure First Sensor AG	
16:45	Arrival Melia Hotel	

### Fraunhofer IZM

The Fraunhofer Institute for Reliability and Microintegration IZM is working in the field of packaging technology for electronic system integration and helps companies assemble robust and reliable electronic systems and integrate these into the application environment.

Fraunhofer IZM is specialized in industry-oriented applied research. With the four technology clusters

- » Substrate-level integration
- » System design
- » Wafer-level integration
- » Materials, reliability and sustainability

Fraunhofer IZM covers the entire spectrum of technologies and services necessary for developing reliable electronics and integrating new technology into applications. The customers are as varied as the applications for electronics. Fraunhofer IZM takes on development projects for the automotive industry, healthcare and industrial electronics and even textile companies.

The technologies and product solutions developed by Fraunhofer IZM are easily integrated into the industrial manufacturing environment. The institute provides all customers with access to equipment compatible with real-life manufacturing conditions. If required, the new technologies can be implemented directly on-site.

For more information please visit the website: [www.izm.fraunhofer.de](http://www.izm.fraunhofer.de)



### First Sensor AG

First Sensor is a leading supplier of sensor solutions. The company develops and manufactures high-quality, customer-specific sensor solutions for the detection of light, radiation, pressure, flow, level and acceleration. First Sensor produces in-house and along the value-added chain from component to system level. Employing 790 people, the company is represented at six locations in Germany and also operates sales and production sites in USA, Canada, Singapore, UK, France, Sweden, Denmark and the Netherlands.

Technology and industry competence

First Sensor focuses on four core markets – Industrial, Medical, Mobility and Electronic Engineering & Manufacturing Services (E2MS).

The Industrial Business Unit stands for

- » Reliable sensors and customized solutions for the full range of industrial applications
- » Optical, pressure, liquid level, inertial and other sensors
- » High precision and long-term stability, even in harsh conditions
- » Innovations from chips to smart sensor systems

The Medical Business Unit stands for

- » Pressure sensors, flow sensors as well as optoelectronic sensors
- » Highest standards of precision and reliability
- » Extreme miniaturization and low energy consumption
- » Development and production in line with the most stringent quality standards for medical devices

The Mobility Business Unit stands for

- » Innovative and reliable cameras and sensors for individual customer requirements, able to withstand the harshest conditions including cold, heat and constant vibrations
- » Robust pressure sensors for all types of vehicles
- » Mass production in line with automotive standards

First Sensor's Electronic Engineering & Manufacturing Services (E2MS) include

- » Consulting and specification, design, engineering and manufacturing
- » State-of-the-art assembling and packaging technologies
- » Test capabilities with in-house measuring and testing technologies
- » Scalability of production capacities

For more information please visit the website: <http://www.first-sensor.com/en>