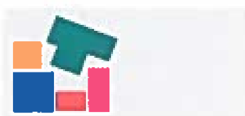
smartsystems integration



International Conference and Exhibition
on Integration Issues of Miniaturized Systems

Conference program

Conference program
Wednesday, 26 March 2014

Olympia Mancini 3
Chairmen: Prof. Dr. Thomas Gessner, Fraunhofer ENAS, DE; Dr. Guenter Lugert, Siemens, EPoSS, DE

→ 8:45 hrs
Welcome
Prof. Dr. Thomas Gessner
Conference chair, Fraunhofer ENAS, DE

→ 8:55 hrs
Welcome
Brigitte Ederer, Chairman FEEI, AT

→ 9:05 hrs
Keynote I
Smart Systems Integration in H2020 and Beyond
Khalil Rouhana, European Commission, BE

→ 9:35 hrs
Keynote II
EPoSS and ECSEL in Austria
Michael Wiesmüller, Bundesministerium für Verkehr, Innovation und Technologie, AT

→ 9:55 hrs
Keynote III
Smart Systems for Internet of Things
Benedetto Vigna, STMicroelectronics, CH

→ 10:20 hrs – 10:45 hrs Coffee break & exhibition

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

Paris & Wien & Turin
Advanced micro and nano technologies
Chairmen: Prof. Dr. P. J. French, Delft University of Technology, NL; Dr. André Perret, CSEM Centre Suisse, CH

→ 10:45 hrs
Energy efficient magnetoresistive sensors for low-power and wireless applications
Dr. Rolf Slatter, Sensitec GmbH, DE

→ 11:10 hrs
Progress in manufacturing of GaN SAW devices resonating in the GHz frequency range for T sensors applications
Dr. Alexandru Muller, IMT Bucharest, RO

→ 11:35 hrs
Peristaltic MicroPump with Active Damping (PMP-AD)
Dr. Axel Schumacher, HSG-IMIT, DE

→ 12:00 hrs
Tunable Straining of Silicon Nanowires Integrated in a MEMS Device by Electrostatic Actuation
Stefan Wagesreither, Vienna University of Technology, AT

Olympia Mancini 1
3D integration and interconnect technologies I
Chairmen: Gilles Poupon, CEA-Léti, FR; M. Jürgen Wolf, Fraunhofer IZM, DE

→ 10:45 hrs
Failure Mechanisms in the 3D Integration of MEMS and ASIC via Au-capped Cu
NOMINATED RESEARCH PAPER AWARD 2014
David Borowsky, Robert Bosch GmbH, DE

→ 11:10 hrs
Waferbonding Technologies for 3D-Integration
Mario Baum, Fraunhofer ENAS, DE

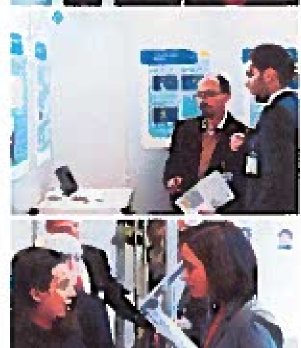
→ 11:35 hrs
Monolithic integration of temporary bonded thin wafers
Dr. Thomas Uhrmann, EV Group, AT

→ 12:00 hrs
Highly Ionized Sputter Deposition into Through Silicon Vias with Aspect Ratios Up to 15:1
Kay Viehweger, Fraunhofer IZM - ASSID, DE

Olympia Mancini 3
EPoSS session I
Strengthening the Smart Systems Integration Ecosystem by reaching out to regional actors across Europe
→ 10:45 hrs – 12:25 hrs

Smart Systems Integration is now an established technology brand that is understood, practiced and applied across a wide range of sectors. However, there are still a large number of industrial actors, very often SMEs, who unbeknown to themselves and to the SSI community, develop, manufacture or use SSI. This hidden part of the SSI Ecosystem will be mobilised in the framework of the EXPRESS coordination action through regional industrial clusters and other multipliers.

We will present results of the EXPRESS exercise on understanding the levers for and assessing the health status of the SSI ecosystem in Europe that looked at players, supply and value chains, roadmaps, framework conditions, performance, dynamics, gaps and needs. We will invite the audience to engage, and in particular to inform EXPRESS of their (dis-)agreements, of outstanding issues and of stakeholder group activities that are needed to resolve them, with the aim to better meet the needs of all actors and strengthen the ecosystem as a whole.



→ 12:25 hrs – 13:30 hrs Lunch break & exhibition