

## Special issue of the conference ‘Smart Sensors, Actuators and MEMS’, within the SPIE EUROPE Symposium ‘MICROTECHNOLOGIES’ Grenoble, France, 24–26 April 2013

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The biannual Symposium was initiated in 2003 by José Fco. López from the University Las Palmas de Gran Canaria. Following events were in Seville, Spain 2005, again on the Canary Islands in 2007 and in 2009 for the first time outside Spain in Dresden, Germany, before it took place in 2011 in Prague, Czech Republic. In 2013 the SPIE EUROPE Symposium ‘MICROTECHNOLOGIES’ went to Grenoble, France. The focus of the Symposium chaired by Thomas Becker from EADS Innovation Works is to discuss the latest advances on a variety of technologies, addressed in five conferences Smart Sensors, Actuators and MEMS, VLSI Circuits and Systems, Nanotechnology, Bio-MEMS and Medical Microdevices, and Integrated Photonics: Materials, Devices and Applications, which are already shaping this millennium.

In the conference ‘Smart Sensors, Actuators and MEMS’ chaired by Ulrich Schmid (Vienna University of Technology) about 113 contributions from Europe, America and Asia were presented and grouped into 9 sessions and a poster session. The interdisciplinary spirit of the event was displayed by a wide range of topics based on the latest results which were achieved in the research and development areas of precision engineering and MEMS. Therefore, sessions focused

on material and fabrication aspects, on micromachined sensors and actuators for the determination of biological, physical and chemical quantities as well as on reliability issues. Moreover optical and RF MEMS have been presented and more application oriented topics such as energy harvesting, microfluidic systems and ultra low power wireless sensing, were discussed. Due to this broad range of topics researchers coming from academia and industry with their specific backgrounds created a very stimulating atmosphere for the exchange of new ideas. From the 113 papers accepted for presentation at the conference 51 prominent candidates were selected for this special issue as revised full length papers representing the interdisciplinary spirit of this event. According to the regulations set by Microsystem Technologies all papers went through a regular review process.

Finally, we would like to thank all the reviewers for the work making this special issue possible. We hope you’ll enjoy reading it and take inspiration from it for new ideas.



Prof. Dr. Thomas Becker  
Symposium Chair and Guest Editor



Prof. Dr. Ulrich Schmid  
Conference Chair and Guest Editor



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