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Smart Sensors, Actuators, and MEMS IV

**Ulrich Schmid
Carles Cané
Herbert Shea**
Editors

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Introduction

The conference 'Smart Sensors, Actuators and MEMS' took place in Dresden, Germany, from May 4th to May 6th, 2009. About 60 contributions from Europe, America and Asia were accepted and grouped into 11 sessions including 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 for the determination of biological, physical and chemical quantities as well as on reliability issues. Furthermore, novel approaches for actuators, optical and RF MEMS were presented and more application oriented topics such as microfluidic systems, energy scavengers and low power management systems, 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.

Besides the high quality of the oral and poster presentations, I would like to highlight the 3 invited talks. The first was given by Anita Lloyd Spetz (Linköping University, Sweden) on new transducer material concepts for biosensors and surface functionalization. Thomas Stieglitz (University of Freiburg, Germany) gave a presentation on the manufacturing, assembling and packaging of miniaturized implants for neural prostheses and brain-machine interface. Last but not least, Ingrid De Wolf (IMEC, Belgium) gave a talk on new methods and instrumentation for functional, yield and reliability testing of MEMS on device, chip and wafer level.

I would like to thank all participants for their individual contributions which made the conference a successful event in the international conference calendar. Special thanks go to José Fco. López, Gerhard Krötz and Thomas Becker for organising the symposium, SPIE staff, and to my Co-Chairs Carles Cane and Herbert Shea. Finally, I would like to thank the Programme Committee for doing the reviews and acting partly as session chairs.

Ulrich Schmid

