



7th International Conference on:

4M2010

Multi-Material Micro Manufacture

Conference Chair: Bertrand Fillon, CEA, France
Conference Co-Chairs: Chantal Khan-Malek, FEMTO-ST, CNRS, France
Stefan Dimov, Cardiff University, UK

17-19 November 2010

Plastipolis, PEP, Oyonnax, France



Organised by 4M Association
(www.4m-association.org)

www.4m-association.org/conference/2010

Scope

In today's market, miniaturised and microsystems-based products represent key value-adding elements for many industrial sectors and thus are an important contributor to a sustainable economy. Following the silicon-based microelectronics revolution of the late twentieth century, a number of micro and nano manufacturing techniques have been developed and implemented into process chains for the fabrication of Micro Electro Mechanical Systems (MEMS). In particular, these technology developments have targeted niche markets and as a consequence, a number of MEMS devices are now being effectively exploited commercially. Interest towards product miniaturisation and Micro and Nano Technologies (MNTs) in general has increased in recent years and since 2005 the 4M Conference series has brought together researchers and industrialists engaged in this important area of manufacturing to share the results of their investigations.



4M2010 will once again create a forum for the presentation of, and discussions about, the creation of manufacturing capabilities in the following areas:

- **Product miniaturisation** through innovative integration and development of knowledge-based technologies and production concepts (especially micro and nano) for the processing of non-silicon materials;
- **Prediction of product and process performance** to reduce/manage the risk during product development and production, and to reduce time to market for the next generation of microsystems-based products;
- **Future product platforms** to meet the requirements of the next generation of microsystems-based products, and of more stringent regulations and environmental legislation; and
- **Production scale-up** to ensure effective and efficient transfer of product and technology ideas from laboratories to serial production.

Themes

Papers are therefore invited that present the latest advances in developing new processes and process chains for multi-material micro manufacture in particular but not limited to:

- **Novel materials:** characterisation and processing;
- **Process modelling and simulation;**
- **Process chains** including their **characterisation and control;**
- **Metrology:** inspection and characterisation methods;
- **Components:** fabrication and assembly technologies;
- **Systems:** novel product and system designs.

The above six sub-topics represent the intended content of the thematic sessions of the Conference, to which the authors are invited to submit papers. The Conference will also feature at least four invited special sessions focussed on the latest technology and application advances achieved in major EC-funded projects (Cotech, Multilayer, FlexPAET and EUMINAFab).

Organising Committee:

Bertrand Fillon, CEA, France (**Conference Chair**)
Stefan Dimov, Cardiff University, UK (**Co-chair**)
Chantal Khan-Malek, FEMTO-ST, France (**Co-Chair**)
Patrick Vuillermoz, Plastipolis, France
Sabino Azcarate, TEKNIKER, Spain
Kornel Ehmann, Northwestern University , USA
Stéphane Bredeau, CEA, France
Luc Federzoni, CEA, France
Hans Nørgaard Hansen, DTU, Denmark
Per Johander, Sverea IVF AB, Sweden
Erik Jung, FhG IZM-Berlin, Germany
Christian Wenzel, FhG IPT, Germany
Dan Dascalu, IMT, Romania
Pieter Bolt, TNO, Netherlands
Per Johander, Swerea-IVF, Sweden
Sjoerd Haasl, IMEGO, Sweden
Jing-song Chu, UCD, Ireland
Victoire de Margerie, RONDOL Ltd, UK
Mihar Junkar, University Ljubljana, Slovenia
Giuliano Bissacco, University of Padova, Italy

Matthias Kautt, FZK, Germany
Paul Kirby, Cranfield University, UK
Richard Leach, NPL, UK
Lars Mattsson, KTH, Sweden
Christoph Baum, FhG IPT, Germany
Humbert Noll, FOTEC, Austria
Svetan Ratchev, Nottingham University, UK
Martin Richter, FhG IZM-Munich, Germany
Andreas Schoth, University of Freiburg, Germany
Garret O'Donnel, TCD, Ireland
Ulf Engel, University of Erlangen-Nuremberg, Germany
Kevin Delaney, DIT, Ireland
Nadja Adamovich, TUWien, Austria
Manfred Schubert, HSG-IMAT, Germany
Volker Schulze, KIT, Germany
Paolo Bartolo, Instituto Politecnico de Leiria, Portugal
Andrzej Rosochowski, Strathclyde University, UK
Dumitru Ulieru, Romes S.A., Romania

Submission of Full Papers

- **Submission site opens 1st February 2010. Deadline 19th March 2010.**

Paper Review

To ensure a high-quality Conference all papers will be reviewed by fellow authors under the leadership of the Session Chairs.

Oral and Poster presentation

Submitted papers may be selected for oral or poster presentation. All oral and poster presentations will be included in the Conference Proceedings.

Provisional Dates:

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| ○ Submission site will open: | 1st February 2010 |
| ○ Submission deadline of full papers: | 19 th March 2010 |
| ○ Feed back from the peer review to authors: | 24 th May 2010 |
| ○ Submission deadline of revised paper: | 11 th June 2010 |
| ○ Notification of acceptance in Final Publication: | 19 th July 2010 |
| ○ Submission of Final paper: | 30 th July 2010 |
| ○ Authors Final Registration: | 30 th July 2010 |
| ○ Public Final Registration: | 31 st October 2010 |

Proceedings:

All final papers accepted for presentation may be included in the 4M2010 Proceedings to be published electronically by a well known international scientific publisher. Selected papers may be considered for publication in Special Issues.

Conference Secretary

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