8th International Conference on:

4M2011
Multi-Material Micro Manufacture

Conference Chairman: Heinz Kück, HSG-IMAT & University of Stuttgart, Germany
Co-Chairmen: Holger Reinecke, HSG-IMIT & IMTEK, University of Freiburg, Germany
Stefan Dimov, Cardiff University, UK

8th-10th November 2011
Stuttgart, Germany

Organised by HSG-IMAT, HSG-IMIT and the 4M Association with the kind support of the State of Baden-Württemberg

www.4m-association.org/conference/2011
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 research.

4M2011 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, MultiPLAT and IntegMicro).
**Organising Committee:**

Heinz Kück, HSG-IMAT, Germany *(Chairman)*  
Stefan Dimov, Cardiff University, UK *(Co-chair)*  
Holger Reinecke, HSG-IMIT, Germany *(Co-Chair)*  
Christine Neuy, mstbw, Germany  
Sabino Azcarate, TEKNIKER, Spain  
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, Sverea IVF, Sweden  
Sjoerd Haasl, IMEGO, Sweden  
Victoire de Margerie, RONDOL Ltd, UK  
Bertrand Fillon, CEA, France  
Matthias Kautt, FZK, Germany  
Paul Kirby, Cranfield University, UK  
Lars Mattsson, KTH, Sweden  
Christoph Baum, FhG IPT, Germany  
Humbert Noll, FOTEC, Austria  
Martin Richter, FhG IZM-Munich, Germany  
Andreas Schoth, University of Freiburg, Germany  
Ulf Engel, University of Erlangen-Nuremberg, Germany  
Nadja Adamovich, TUniWien, Austria  
Manfred Schubert, HSG-IMAT, Germany  
Volker Schulze, KIT, Germany  
Dumitru Ulieru, SiteX5 S.A., Romania  
Chantal Khan-Malek, FEMTO-ST, France  
Karl-Peter Fritz, HSG-IMAT, Germany  
Rainer Guenzler, HSG-IMIT, Germany  
Chris Matthews, Cardiff University, UK

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**Submission of Full Papers**

- Submission site opens 1st March 2011. **Deadline 8th April 2011.**

**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:**

- Submission site will open: **1st March 2011**
- Submission deadline of full papers: 8th April 2011
- Feedback from the peer review to authors: 10th June 2011
- Submission deadline of revised paper: 1st July 2011
- Notification of acceptance in Final Publication: 1st August 2011
- Submission of Final paper: 16th September 2011
- Authors Final Registration: 30th September 2011
- Public Final Registration: 31st October 2011

**Proceedings:**

All final papers accepted for presentation may be included in the 4M2011 Proceedings to be published electronically by a well known international scientific publisher. Selected papers will be considered for publication in Special Issues.

**Conference Secretary**

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