

## Workshop on Design for Micro & Nano Manufacture 30-31 May 2005 (in conjunction with DTIP, 1-3 June 2005), Montreux, Switzerland

This workshop will present European research activities in the areas of MEMS Test and Packaging, discuss PATENT-DfMM objectives, and aims at getting feedback on industry needs in the Design for Micro and Nano Manufacture. It also includes two tutorials.

Monday 30 May, 14:00

### Workshop on "Latest Advances in MEMS Testing"

Organised by P. Nouet, LIRMM, France

Micro Nano Technologies offer the possibility of manufacturing systems with heterogeneous and non-electronics functions. With these systems, traditional test methods are often not applicable and the "late" implementation of test routines often leads to additional development cycles and cost. This session will address a selection of Design for Test (DfT) solutions recently proposed to reduce the cost of MEMS testing.

### 15:50 Tutorial "Techniques for Failure Analysis of MEMS and MEMS Packages"

I. De Wolf, IMEC

The focus of this tutorial is on failure analysis (FA) of MEMS and MEMS packaging. Techniques commonly used for FA of IC's and IC packages that can also be used for MEMS, are discussed. But also new techniques specific to MEMS FA will be introduced and their application field, advantages and disadvantages will be discussed.

Tuesday 31 May, 09:00

### Tutorial "Thermal Characterisation of MEMS Structures and Packages"

M. Rencz, BUTE/MicReD

This tutorial gives an introduction to the thermal characterisation of MEMS elements and packages. It introduces the theory of the thermal transient characterisation method

and presents how to use it for structure integrity checking and for model generation.

### 10:50 European Research Programmes in MEMS Packaging / Package Engineering

Organised by A. Brown, QinetiQ  
Within this session, a selection of European research programmes in MEMS packaging will be presented. These include an overview on the "package engineering" projects within the PATENT-DfMM project.

### 14:00 NEXUS MWG-DMS and NoE PATENT-DfMM Workshop "Design Modelling Simulation of Microsystems"

Chaired by P. Salomon, 4M2C  
Co-organised by the NEXUS Methodology Working Group "Design Modelling Simulation" (MWG-DMS), and the EC-funded Network of Excellence "Design for Micro & Nano Manufacture" (PATENT-DfMM). Its objective is to share latest developments and ideas for "Design for Manufacture" methodologies and their potential implementation into algorithms and design tools. Presentations will be from design, modelling and simulation experts and commercial EDA providers.

### Venue

Hôtel Eden au Lac, Montreux, Switzerland

### Registration fee

150 (including coffee breaks, lunch on 31 May and proceedings)  
Please register for this workshop through the DTIP registration form.

The detailed programme of the workshop will be updated at: [www.patent-dfmm.org](http://www.patent-dfmm.org). If you are interested in presenting within this workshop, please contact e-mail: [patric.salomon@4m2c.com](mailto:patric.salomon@4m2c.com).

### DTIP - Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS (1-3 June)

The goal of DTIP is to provide a forum for in-depth investigations and interdisciplinary discussions involving design, modelling, testing, micromachining, microfabrication, integration and packaging of structures, devices, and systems.

<http://tima.imag.fr/conferences/dtip/DTIP2005/>

## DfMM Contact

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The NoE Patent-DfMM aims to establish a collaborative team to provide European industry with support in the field of "design for micro nano manufacture" to ensure that problems affecting the manufacture and reliability of products based on micro nano technologies (MNT) can be addressed before prototype and pre-production.



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## PATENT-DfMM at Hanover Fair, 11-15 April 2005

PATENT-DfMM will have a booth at this year's Hanover Fair. The booth will be shared with the EC-funded Europractice project and will be lo-

cated within the IVAM pavilion at the "Microtechnology special area", Exhibition Hall 15, Booth D 36.