

19 February 2007

Dear Reader,



The Network of Excellence (NoE) Patent-DfMM aims to establish a collaborative team to provide European industry with support in the field of "Design for Micro & Nano Manufacture (DfMM)" to ensure that problems affecting the manufacturing and reliability of products based on micro & nano technologies (MNT) can be addressed before prototyping and production. For more information: <http://www.patent-dfmm.org/>

Welcome to the new edition of our bi-monthly E-Newsletter, which will keep you updated on project related activities, but also on other DfMM activities that run outside of the project.

We apologise in case you have been added to our database in error: if so, please reply by e-mail with "UNSUBSCRIBE" in the subject field.

We welcome your comments and contributions.  
Happy reading !

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*NoE Patent-DfMM News Editor*

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[www.patent-dfmm.org](http://www.patent-dfmm.org)

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## News from the NoE Patent-DfMM

### **PATENT-DfMM / NEXUS Workshop on Design for Reliability and Manufacturability in MNT, 24 Apr 07, Stresa, Italy (in conjunction with DTIP 25-27 Apr 2007)**

This event will be co-organised by PATENT-DfMM and the NEXUS Methodology Working Groups "Reliability & Test" and "Design Modelling Simulation". Main emphasis will be on reliability and test problems, where design methodologies can lead to significant improvements. The workshop will discuss how to leverage the design, reliability and test communities over the coming years for the benefit of European competitiveness; this might include the need for new European and International collaborative initiatives. In addition, further industry demand for advances in Design, Reliability and Test capability will be addressed. More information will be published at [www.patent-dfmm.org](http://www.patent-dfmm.org)  
Contact: Patric Salomon, 4M2C/enablingMNT, Germany, E-Mail: [patric.salomon@4m2c.com](mailto:patric.salomon@4m2c.com)

### **PATENT-DfMM and NEXUS MWG Design Modelling Simulation Workshop, 25 Jan 07, Berlin, Germany - Presentations now available**

33 MEMS designers from industry and research labs, as well as MEMS software tool providers from several European countries participated in this workshop. The workshop was structured into short presentations, work groups and plenary discussion sessions. This format provided the best opportunities for participants to hear about latest developments, network, to discuss needs and ideas in small groups and to generate outcomes that will focus future research in DfMM on the real needs of the industry. Most presentations from the workshop are now available from the PATENT-DfMM website free of charge.

[www.patent-dfmm.org](http://www.patent-dfmm.org)

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## News from the DfMM community

### **Job vacancy at IMEC, Belgium "Project Engineer MEMS Reliability"**

IMEC is looking for a new Project Engineer who is responsible for reliability and functionality measurements on MEMS within the frame of projects with external and internal partners. Tasks include: Setting-up and performing reliability and functionality measurements; Performing the measurements with existing equipment or setting-up new measurement equipment; Analyzing the data and reporting the results in scientific and project meetings, deliverables and publications.

The job requires a Master in Electrical Engineering (or equivalent by experience), a PhD degree is a bonus. The candidate should have proven experience in electrical testing and microelectronics research, preferably on MEMS and should be able to set-up electrical test instrumentation and perform tests independently. More information:

[http://www.imec.be/wwwinter/jobs\\_portal/en/jobs/descriptions/20070205122327\\_description.shtml](http://www.imec.be/wwwinter/jobs_portal/en/jobs/descriptions/20070205122327_description.shtml)

Contact: Ms. Sofie Hermans, IMEC, Leuven, Belgium, E-mail: [jobs@imec.be](mailto:jobs@imec.be)

### **New Report on "Design and Engineering Companies for MST/MEMS", January 2007**

enablingMNT has recently analysed the current state of design houses in the context of microsystems markets and development trends. A detailed assessment has taken place for the various types of design houses in terms of the facilities and the capabilities on offer and their position within the product development chain and its lifecycle. Design houses appear to offer the multi-disciplinary approach necessary to fully understand and exploit the potential of the technology, due to their having a more flexible access to a wider range of capabilities and expertise than either a foundry or a specialised industry will have. In addition, the design houses claim to provide an ideal gateway to small- and medium-sized enterprises (SMEs) for accessing the technology that, generally, would be prohibitively expensive to undertake. The report includes profiles of 77 Design Houses world-wide.

Contact: Patric Salomon, 4M2C/enablingMNT, Germany, E-Mail: [patric.salomon@4m2c.com](mailto:patric.salomon@4m2c.com),  
[www.enablingMNT.com](http://www.enablingMNT.com)

## **EV Group (EVG) and GeniSys collaborate on advanced mask aligner lithography simulation for MEMS**

EVG announced it has formed a collaborative product development partnership with GeniSys GmbH for the development and marketing of a simulation platform for advanced mask aligner lithography processes. The first technological advance to come out of this partnership is GeniSys Layout LAB, an easy-to-use simulation platform for mask aligner lithography. The Layout LAB software is available at [www.EVGTshop.com](http://www.EVGTshop.com) and [www.genisys-gmbh.de](http://www.genisys-gmbh.de).

Contacts: Thomas Fodermeyer, EV Group, [T.Fodermeyer@EVGroup.com](mailto:T.Fodermeyer@EVGroup.com), Nezih Ünal, GeniSys GmbH [unal@genisys-gmbh.de](mailto:unal@genisys-gmbh.de)

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## **Event Announcements**

### **PATENT-DfMM will present at 6th MEMUNITY workshop, 6 Mar 07, Grenoble, France**

The workshop will cover topics like reliability challenges, pressure sensor characterization and general wafer-level testing of MEMS. This workshop will be held in conjunction with CEA/LETI and MINATEC. Prof Pascal Nouet (LIRMM), leader of the PATENT-DfMM workpackage "Design for Test" will give a presentation on "Design for Test of MNT-based Systems: Alternative Test Solutions for reduced Test Costs". In the afternoon a visit of the "Microsystems Characterisation and Reliability Laboratory (LCFM)" is planned. Due to safety regulations at CEA early registration is necessary!

[www.memunity.org](http://www.memunity.org)

### **PATENT-DfMM to participate in MINOS/NEXUS Brokerage Event FP7, 22-23 Mar 07, Bucharest, Romania**

The event is focused on selected NMP/ICT topics that are relevant for the first calls of FP7. The event is organised by a number of European networks and projects, including PATENT-DfMM and NEXUS, with local organisation provided by the EU project MINOS-EURONET.

The "info" part of the event will include presentations of key EC officials and representatives of European technological platforms such as MINAM/Manufature (micro- and nanofabrication), Nanomedicine, Nanoelectronics etc. The "brokerage" part of the event will allow the direct interaction between participants: there will be space for posters and tables for computer presentations or display of printed materials. Preferred topics for brokerage will be defined beginning of March.

More information: [www.minos-euro.net](http://www.minos-euro.net)

### **STIMESI MEMS Training Course Program "MEMS Design and INTEGRAMplus Silicon MEMS Prototyping Services", 16-19 Apr 07, Warsaw, Poland**

This 4-day course will be given by a combination of academic experts, industrial designers and software developers. It provides an overview of MEMS processing technologies and how to approach the design of MEMS devices. Underpinning concepts of micro-mechanics (with worked examples of accelerometer and gyroscope) and microfluidics, electronic transduction techniques, and the principles of Finite Element Analysis will be reviewed. This will be followed by tutorials on the INTEGRAMplus silicon MEMS processes, design rules and introduce various design tools for analytical design, layout and simulation (circuit-level and finite element). The course will introduce for the first time concepts and drivers for multi-domain integration and INTEGRAMplus microfluidic services. The emphasis throughout is to provide participants with hands-on experience to reinforce learning through a combination of group exercises and the use of CAD tools over the final 2 days. Practical design tutorials with case studies in CoventorWare will be included and there is also dedicated time for participants to develop their own design ideas. Participants will have the opportunity to continue to develop their skills through post-course homework and support.

Registration and more information at [www.stimesi.org](http://www.stimesi.org)

### **DTIP, 25-27 Apr 07, Stresa, Italy**

DTIP is the symposium on Design, Test, Integration and Packaging of MEMS and MOEMS. 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.

More information at <http://tima.imaq.fr/conferences/dtip>

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## **COMS2007- International Conference on Commercialisation of Micro and Nano Systems, 2-7 Sep 07, Melbourne, Australia**

For the first time COMS will be held in the Asia-Pacific region. COMS2007 will focus on the commercialization of micro and nano systems – bringing together hundreds of international delegates to hear from and interact with a broad range of industry experts, including researchers, suppliers, end-users and venture capitalists. Come and discover Australia's dynamic nanotechnology community, participate in interactive sessions, product demonstrations and facility tours.

The official COMS 2007 website: [www.mancef-coms2007.org](http://www.mancef-coms2007.org)

## **Other Events**

6 - 7 March 2007

### **MICROTECH 2007 "Intelligent Manufacturing / Advanced Interconnection"**

Daventry, UK

[www.imaps.org.uk/events/events\\_MT2007.html](http://www.imaps.org.uk/events/events_MT2007.html)

22 - 23 March 2007

### **MINOS/NEXUS Brokerage event on FP7 calls in 2007**

Bucharest, Romania

[www.minos-euro.net/brokerage](http://www.minos-euro.net/brokerage)

27 - 28 March 2007

### **Smart System Integration 2007**

Paris, France

[www.mesago.de/de/SSI](http://www.mesago.de/de/SSI)

16 - 19 April 2007

### **STIMESI training course on MEMS Design and INTEGRAMplus Prototyping Services**

Warsaw, Poland

[www.stimesi.org](http://www.stimesi.org)

16 - 20 April 2007

### **DATE 07 Design, Automation and Test in Europe**

Nice, Côte d'Azur, France

[www.date-conference.com](http://www.date-conference.com)

24 April 2007

### **PATENT-DfMM/ NEXUS Workshop on Design for Reliability and Manufacturability**

Stresa, Lago Maggiore, Italy

[www.patent-dfmm.org](http://www.patent-dfmm.org)

25 - 27 April 2007

### **DTIP 2007 - SYMPOSIUM on Design, Test, Integration and Packaging of MEMS/MOEMS**

Stresa, Lago Maggiore, Italy

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

## **Abstract deadlines for conferences**

### **MEMSWAVE 2007**

26 - 29 June 2007

Barcelona, Spain

**Abstract Deadline: 9 Mar 07**

<http://congress.cimne.upc.es/memswave07>

### **4M2007 Conference**

3 - 5 October 2007

Borovets, Bulgaria

**Abstract Deadline: 28 Feb 07**

[www.4m-net.org/Conference/4M2007](http://www.4m-net.org/Conference/4M2007)

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**CAS2007 International Semiconductor Conference**

15 - 17 October 2007

Sinaia, Romania

**Abstract Deadline: 10 Jun 07**

[www.imt.ro/cas](http://www.imt.ro/cas)

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Next issue planned : **25 March 2007** (deadline for contributions: **20 Mar 07**)

Please feel free to send us any DfMM-related news that might be of interest for our readership.

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This e-mail newsletter contains public information, only. Please feel free to distribute it to anyone who might be interested in the topics.

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