



Design for Micro & Nano Manufacture (DfMM) News

web page: <http://www.patent-dfmm.org>

Coordinator: University of Lancaster (UK), Dr. A Richardson (A.Richardson@Lancaster.ac.uk)

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.

Call for Papers: IMSTW'06 International Mixed-Signals Testing Workshop, 21 - 23 Jun 06, Edinburgh, UK Submission Deadline: 27 February 2006

The IEEE International Mixed-Signals Testing Workshop (IMSTW) is a forum for discussing all aspects of testing, design-for-test and reliable design of integrated mixed-signals/mixed-technology functions and systems. This includes testing and design verification of monolithic mixed-signal/mixed-technology systems (SoC), heterogeneous systems including system-in-package and printed circuit board implementations of mixed signal functions. The technology spectrum includes analogue, mixed-signals, high-speed IO, RF, MEMS (inc. optics, bio-chemical and microfluidics), and nanotechnology. Test topics such as design-for-test techniques, BIST, fault diagnosis, test generation, on-line and off-line testing, fault modelling, fault simulation and design of fault tolerant systems are all considered. Mixed signals infrastructure, embedded core testing and application specific topics are also welcome. The IMSTW Program Committee invites authors to submit papers in the above areas. Contact: **Prof Andrew Richardson**, Lancaster University, UK, E-mail: A.Richardson@Lancaster.ac.uk

Call for Papers: MEMSWAVE 2006 & RF MEMS Cluster Meeting, 29 - 30 Jun 06, Orvieto, Italy. Submission Deadline: 3 March 2006

The series of MEMSWAVE Workshops is presently organized by the AMICOM (Advanced MEMS For RF and Millimeter Wave Communications) Network of Excellence. The Workshop will provide an international forum for scientists and industrialists for the exchange of information on the most recent advances and best achievements in the area of RF MEMS with emphasis on European activities. The Workshop will be preceded (28 June) by the MEMS Cluster Meeting, a meeting organized by AMICOM in collaboration with the European Commission, where the achievement of MEMS-related EU projects will be presented and discussed.

For more information please visit <http://www.memswave2006.org>.

PATENT-DfMM Course "Thermal Issues in MEMS" - an intensive introduction to the significant effects of heat transfer, modelling and measurement, 10-11 Jan 06, Berlin, Germany

The training on "Thermal Issues in MEMS" will be held at the Fraunhofer IZM in Berlin, Germany on 10-11 Jan 2006. Some of the areas covered in this course are Heat transfer Basics and Modelling Techniques, Testing Techniques and MEMS & NEMS Thermal Management.

Course Fee: € 450 + VAT.

More information and registration: <http://www.patent-dfmm.org>.

Contact: **George Bell**, ISLI, UK,

E-mail: george.bell@sli-institute.ac.uk.

Technology Roadmapping event for Packaging of MOEMS and RF MEMS, 16 Feb 2006, HWU

Technology Roadmapping event for Packaging of MOEMS and RF MEMS on Thursday 16 February 2006 at Heriot-Watt University, as part of the FP6 Network of Excellence Patent-DfMM "Design for Micro and Nano Manufacture".

The event is free to attend and will be prepared by PATENT-DfMM WP 4 (Packaging) project partners. It will be facilitated by Mr Paul Palmer of the PRIME Faraday Partnership at Loughborough University, UK. Paul has years of experience of roadmapping in academia, industry and government.

The day will aim at identifying technological trends, bottlenecks and investment opportunities in packaging of MOEMS and RF MEMS, in order to encourage the take up of MEMS by industry. During the workshop, a selection of projects and capabilities in packaging of MOEMS and RF MEMS will be carried out by applying roadmapping criteria for technology viability. The information gathered during the workshop will be processed after the day to produce the roadmap.

A draft agenda for the day can be found in the PDF. To register for the event or for any other information please email: **Fabien Holler**, f.holler@hw.ac.uk

The publication of this page is supported by the **network of excellence PATENT - DfMM**

NEXUS Market Analysis for MEMS and Microsystems III, 2005-2009, available.

Over the next five years, the Microsystems (including MST/MEMS) market is predicted to grow at a rate of 16% per year from \$12 billion in 2004 to \$25 billion in 2009 across a spectrum of 26 MEMS/MST products. Employing the historical definition given by NEXUS – the smallest unit containing MEMS that is commercially available – the market will grow from \$ 36 billion to \$ 52 billion in 2009. Driving these markets are read/write heads, micro-displays and inkjet heads. The report is available now, priced at 1100 Euro, from 4M2C/enablingMNT.

The price for the NEXUS Roadmap (published in 2003) has been reduced from 800 to 300 Euro. A bundle of both reports is available at 1300 Euro.

Order forms can be found at <http://www.enablingmnt.com>. More information is available from **Patric Salomon**,

E-mail: patric.salomon@4m2c.com

Workshop "Mechanical Reliability of Silicon MEMS - Recent progress and further requirements", 27-28 Feb 06, Halle/Saale, Germany

In this symposium speakers from industry, research institutes, as well as from universities will address topics like silicon MEMS market, reliability requirements, strength testing and prediction, dynamic analysis, fatigue wear and accelerated testing, and lifetime analysis.

It will be held at the Fraunhofer-Institute for Mechanics of Materials (IWM), which develops solutions to increase the safety, availability, and lifespan of components and systems ranging from microelectronic devices to power plant components.

More information and registration: <http://www.iwmh.fraunhofer.de>. Contact: **Claudia Kaestner**, Fraunhofer IWMH, Halle/Saale, Germany, E-mail: claudia.kaestner@iwmh.fraunhofer.de.

Online Professional Training for the Electronics Industry at ISLI, UK, starting January 2006

Enrolment is now open for the following courses:

- Introduction to Hardware Design Automation
- Introduction to Embedded Software Engineering
- IP Block Authoring
- System Partitioning
- IP Block Authoring
- VLSI Design
- Embedded Software – SoC
- Embedded Software – Operating Systems
- Embedded Software – Applications
- Microcontrollers & Microprocessors
- Introduction to Verification
- Semiconductor Design for Testability

Further Information about courses and prices:

<http://www.sli-institute.ac.uk/student/dl/about.htm>.

Contact: **Gillian Nagle/Gillian Ventre**, ISLI, UK,

E-mail: distlearn@sli-institute.ac.uk