



Workshop on Design for Reliability and Manufacturability in MNT

25 April 2006 (9:00-17:30), Stresa, Lago Maggiore, Italy (in conjunction with DTIP, 26-28 April)

Co-organised by the EC-funded Network of Excellence "Design for Micro & Nano Manufacture" (PATENT-DfMM) and the NEXUS Methodology Working Groups "Reliability & Test" and "Design Modelling Simulation". PATENT-DfMM was launched in 2004 and aims to establish a collaborative team to provide European industry with support in the field of "Design for Micro and 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. More information:

www.patent-dfmm.org

PATENT-DfMM co-operates worldwide to coordinate research and services in DfMM related topics. The network is supported by an educational programme addressing DfMM topics in industry and academia. This combines training courses and educational initiatives that already exist for DfMM, but also develops new ones that are needed to lower the barriers to commercialisation for the next generation of MNT based products.

research results and new approaches will be proposed by the research community.

Workshop programme

9:00 Registration

9:15 Welcome address, Andrew Richardson (Lancaster University)

Industry usage and needs in Reliability and Test for MNT, chair: Patric Salomon

09:30 Reliability issues in volume production, Henne van Heeren (EnablingM3)

09:50 Reliability needs in Aerospace industry, Francis Presseccq (CNES)

10:10 MEMS Testing: Industry Challenges, Holm Geissler (SUSS MicroTec Test Systems)

10:30 Coffee break (poster session 1)

Current research in Reliability and Test for MNT, chair: Marta Rencz

11:00 Reliability of MEMS and the INTEGRAMplus service, Chris Reeves (QinetiQ)

11:20 Reliability issues associated with the integration of Micro and Nano, Denis Koltsov (Lancaster University)

11:40 PATENT-DfMM reliability databases, Oana Nedelcu (IMT-Bucharest)

12:10 Lunch break

Building reliability and test in MEMS design tools, chair: Pascal Nouet

14:00 MEMS design tools enabling Design for Reliability (DfR) - developments within the EC project RETINA, Gerold Schröpfer (Coventor)

14:20 SoftMEMS, An illustrated approach to DfMM, Ridha Hamza (SoftMEMS)

14:40 Design for Manufacture Methodology – Is it CADABLE? Andrew Richardson (Lancaster University)

15:00 Coffee break (poster session 2)

Current research in Design for Manufacturing, chair: Andrew Richardson, Patric Salomon

15:30 Upcoming research in reliability within PATENT-DfMM NoE (flagship projects), Andrew Richardson (Lancaster University)

15:50 Challenges in MNT Production Testing, Pascal Nouet (Montpellier University)

16:10 Networks, roadmaps and other activities to support DfMM (e.g.: NEXUS, MEMS Industry Group, PATENT-DfMM NoE), Patric Salomon (4M2C)

16:30 Panel Discussion with all participants:

Towards the EC Framework 7 programme: How can researchers help industry in solving their reliability and test problems?

17:30 Adjourn



Objective of the workshop

This workshop builds on industry experience in microsystems manufacturing as discussed recently within the MEMS Industry Group METRIC workshops and NEXUS Methodology Working Group meetings. Main emphasis will be on reliability and test problems, where design methodologies can lead to significant improvements. Industry's design and reliability needs will be discussed and latest

The Venue

Regina Palace Hotel - Stresa, Lago Maggiore, Italy

Registration fee

€120 (including coffee breaks and lunch on 25 April); For registrations after 5 April: €160.

Please register for this 1 day Workshop on Design for Micro & Nano Manufacture through the DTIP registration form at <http://tima.imag.fr/conferences/dtip/Submit-Registration.asp>. Hotel and venue information is also available from the DTIP website.

The detailed programme of the workshop will be updated at: <http://www.patent-dfmm.org>. For additional information or if you are interested in presenting within this workshop, please contact: Patric Salomon, 4M2C PATRIC SALOMON GmbH, Germany, E-mail: patric.salomon@4m2c.com or Pascal Nouet, Montpellier University, France, E-mail: nouet@lirmm.fr

DTIP PANEL - Design for Reliability and Test of Microsystems 27 April (8:30-10:00), Stresa, Lago Maggiore, Italy

Industrial microsystems manufacturers will present how they deal with reliability and test issues currently and what their main challenges are. Recent research results will be discussed and directions given for future research from an industry perspective. This includes reliability and test issues and their implementation into an industrial design methodology. Organised by the PATENT-DfMM project (www.patent-dfmm.org). Registration to DTIP is required.

Panellists:

Ludo Stulens, Philips
Augustin Coello-Vera, Alcatel Space
Xavier Lafontan, NOVA MEMS
Andrew Richardson, Lancaster University

Moderation: Patric Salomon, 4M2C PATRIC SALOMON GmbH

DTIP (26 – 28 April)

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.imag.fr/conferences/Dtip/DTIP2006/index.html>