MNE INTERNATIONAL STEERING COMMITTEE

Anja Boisen, Technical University of Denmark - Denmark
Michel Despont, IBM Research Zurich – Switzerland
Zahid Durrani, Imperial College London – United Kingdom
Massimo Gentili, Innovation and Technology Management – Italy
Evangelos Gogolides, NCSR Demokritos Athens – Greece
Dieter Kern, (Chair), University of Tübingen - Germany
Pieter Kruit, Delft University of Technology – Netherlands
Herbert Brueckl, Austrian Institute of Technology – Austria
Shinji Matsui, University of Hyogo - Japan
Francesc Pérez-Murano, CNM-CSIC Barcelona – Spain
John Randall, Zvyex Dallas – USA
Kurt Ronse, IMEC Leuven – Belgium
Cristophe Vieu, LAAS-CNRS Toulouse - France

MNE INTERNATIONAL PROGRAMME COMMITTEE

All submitted abstracts will be evaluated by several members of the International Programme Committee, whose names will be listed on the MNE2013 website.

MNE 2013 ORGANISING COMMITTEE

Conference Chair: William Milne (University of Cambridge)
Programme Chair: Zahid Durrani (Imperial College London)
Programme Co-Chair: Mervyn Jones (Imperial College London) and Hiroshi Mizuta (University of Southampton)
Conference Management: Betty Yue and Ulrika Wernmark (Imperial College London)

ADMINISTRATIVE AND GENERAL INFORMATION

The primary source of information about MNE2013 is the conference website:

www.mne2013.org

Questions and further information concerning registration, sponsorship, exhibitors, etc., may all be addressed to:

MNE2013@imperial.ac.uk

IMPORTANT DATES

Conference: 16 – 19 September 2013
Abstract Deadline: 31 May 2013
Notification to Authors: 12 July 2013
Early Registration Closes: 12 August 2013

ABSTRACT SUBMISSION AND CONFERENCE FEES

Information about abstract submission and conference registration will all be made available on the conference web site later.

We look forward to welcoming you in London!
**BACKGROUND INFORMATION**

MNE is a major annual international conference, devoted to micro and nano fabrication and manufacturing, held in a European country every September. The Conference brings together engineers and scientists from across the world to discuss recent progress and future trends in the fabrication, manufacturing, operation and application of micro and nanostuctures and devices. Applications in electronics, photonics, electromechanics, environment and life sciences are also discussed.

MNE 2013 will be the 39th conference in a series that was started in Cambridge in 1975 and which was held most recently in Athens (2008), Ghent (2009), Genoa (2010), Berlin (2011) and Toulouse (2012). In September 2013 MNE will return to the UK after 10 years. The organising committee are pleased to announce that the conference will be held at Imperial College London. Judging on previous years, it is estimated that the conference will attract 500-800 participants.

**CONFERENCE STRUCTURE**

The conference will start with a welcome reception, held on Monday 16 September in the evening. The technical sessions will be held from Tuesday 17 through to Thursday 19 September, with the meeting closing at the end of the afternoon.

The programme combines plenary and parallel oral sessions featuring invited presentations by a number of international recognised scientists and will also include both contributed oral and poster presentations. Accepted abstracts will be assigned to oral or poster presentations, based on recommendations from the International Programme Committee. Equal weight is given to poster and oral presentations. In addition there will be a technical exhibition where exhibitors can display commercial tools, materials and software of direct interest to the community.

**SCOPE OF THE CONFERENCE**

The MNE Conference will address issues in micro and nano-fabrication and manufacturing using lithography and other patterning related approaches, with themes that will include:

**Micro and Nano Lithography**

*Nano-imprint and soft-lithography*: systems, alignment, stamp fabrication, processes and imprinting methods, results and applications, dedicated resists.

*Maskless lithography*: photon, charged particles, scanning probe techniques, sources, optics, systems, alignment, modelling, throughput, 3D lithography.

*Photon lithography*: DUV, immersion, EUV, sources, optics, systems, mask technology, alignment, optical proximity correction, lithography modelling, novel techniques.

*Electron and ion beam lithography*: sources, optics, systems, alignment, proximity corrections, e-beam mask writer, ion and electron beam surface interactions.

*Materials for micro and nano lithography*: resists, resist structures, resist processes, nanostructured materials.

**Micro and Nano Fabrication**

*Nanofabrication with top-down and bottom-up approaches*: novel fabrication methods, self-assembly and directed self-assembly, combination of top-down and bottom-up processes, surface nano engineering, resolution limits, nanomanipulation, integration of nano-objects, tip-induced fabrication, nanoscale modelling, molecular technologies.

*Pattern transfer and plasma etching*: nanoscale etching, lithography/etching interactions, etching of new materials, novel etching chemistry, etching damage, deep etching, lateral etching, lift-off, plating, sputtering, beam etching/deposition, modelling.

*Nonmetrology*: inspection, testing, metrology and in-situ process measurements, devices and circuits, reliability, nanoscale metrology.

**Micro and Nano Devices**

*Nanoelectronic/photon devices*: nanoelectronics, single electron transistor devices, quantum dots, nano-optics/nanophotonics, plasmonics, nanowire and nanotube based devices, high density data storage devices, nano magnetics, nano devices, molecular devices, characterisation.

*Micro and nano manufacturing*: transfer of nanofabrication and nanoscience from laboratory to Industry, manufacturable production of nanostructures, devices and systems.

**Micro and Nano Systems and their Fabrication: MEMS, NEMS, Micro-Optics, Photovoltaics**

*Surface and bulk micromachining*: 3D structures, stereolithography, rapid prototyping, moulding, new materials, sensors and actuators, M(O)EMS, NEMS, RF-MEMS/NEMS, electromechanical passive devices, RF mechanical resonators.

**Micro and Nano Fabrication for Life Science**

*Micro and nanofabrication of fluidic systems*: characterisation, devices for biology, chemistry, medicine, micro-biodevices, biodetection devices, cell sorting devices, cell/micro-nanostructure interactions, neuronal devices, biosensors and lab-on-a-chip, μTAS, BioMEMS, micro-nano devices for chemical analysis, gas sensors.

*Bio-inspired technologies*: bioanomachines, bioassembly of nanomaterials, hybrid devices.

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