NANO-TEC PARTNERS



CHALMERS



FINAL WORKSHOP

NANO-TEC ADVISORY BOARD AND COLLABORATORS

Livio Baldi, Micron Technology Inc., Milan

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Danilo De Marchi, Polytechnic University of Turin

Sandip Tiwari, Cornell University, Ithaca

WHAT DO WE AIM AT?

New collaborations and joint technology design consortia

Identifications of emerging technologies in nanoelectronics

Enhanced visibility and stronger competitiveness of nanoelectronics research in the European Research Area and beyond



TECHNOLOGY-DESIGN ECOSYSTEM SUMMARY AND RECOMMENDATIONS

6-7 NOVEMBER 2012

Hotel Front Marítim **BARCELONA, SPAIN**



DEADLINE FOR REGISTRATION: 20 OCTOBER 2012

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WHY YOU SHOULD ATTEND

NETWORKING NANOELECTRONICS

Europe is characterized by a large, yet fragmented expertise in Beyond CMOS, both in technology and in design;

These two fields do not interact enough with one another;

There is a gap between such expertise and the uptake of european nanoelectronics in the market;

COME AND FIND OUT THE PRELIMINARY RECOMMENDATIONS ARE FROM WORKSHOPS 1, 2 AND 3

WORKSHOP 1 - January 2011, Granada, Spain IDENTIFICATION OF MAIN REOUIREMENTS FOR FUTURE ICT DEVICES

Technology and design status on spintronics, graphene, analog-mixed-signal design, siliconbased electronics, compound semiconductor-based micro electronics, molecular electronics, quantum computing.

https://www.fp7-nanotec.eu/workshop1/presentations

WORKSHOP 2 -October 2011, Athens, Greece BENCHMARKING OF NEW BEYOND CMOS DEVICES AND DESIGNS

Developing a benchmark methodology to compare future nanoelectronic technologies and enabling their design. Plus nanowires and MEMS. https://www.fp7-nanotec.eu/workshop2

WORKSHOP 3 -May 2012, Lausanne, Switzerland SWOT ANALYSIS OF THE TECHNOLOGY-DESIGN ECOSYSTEM

The SWOT analyses indicated where work is needed and the potentially unsurmountable barrier, but are these real barriers?

https://www.fp7-nanotec.eu/workshop3

Join in the discussions and working groups sessions to make your recommenda tions based on your experience and projects. This is an opportunity to take a joint step to make future nanoelectronics research and development stronger in Europe.

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NOVEMBER '12 WORKSHOP PROGRAM HIGHLIGHTS

SRC views on Nanoelectronics, Dr. Victor Zhirnov, Semiconductor Research Corporation, Raleigh Durham, North Carolina

Neuromorphic computing as a new computing paradigr^arof. Dr. Leon Chua, University of California, Berkeley (Tentative)

Nanoelectronics in EU Horizon 2020 Dr. Dirk Beernaert, INFSO Nanoelectronics, European Commission, Brussels, Belgium (Tentative)

Topological Insulators, Prof. Dr. Laurens Molenkamp, University of Würzburg, Germany

Panel discussion: "Design Tools for Beyond CMOS Technologies"

Prof. Dr. Sandip Tiwari , Cornell University, Ithaca, NYProf. Dr. Paolo Lugli, Technical University of Munich, GermanyProf. Dr. Leon Chua, University of California, BerkeleyProf. Dr. Wolfgang Rosenstiel, Eberhard University of Tübingen, Germany

Summary and recommendations presented by NANO-TEC partners on:

Overview of Workshops 1 to 3

Technology and Design for devices with charge as state variable

Technology and Design for devices with non charge state variables

Technology and Design of new computing paradigms (These three topics will be followed by a discussion and working group meetings with all participants to consolidate the feedback and recommendations)

Industrial views

Ecosystem technology

FOR FURTHER DETAILS PLEASE VISIT https://www.fp7-nanotec.eu/workshop4