



SINANO-NANOFUNCTION Workshop: **“Nanosensing and Disruptive Mechanical, Thermoelectric, Solar Energy Harvesting”**

Date of the Workshop: September 16, 2011, Helsinki, Finland - *during ESSDERC-ESSCIRC'2011*

Organized by: Sinano Institute: Francis Balestra, Grenoble INP/CNRS, Enrico Sangiorgi, IUNET, Per-Erik Hellström, KTH

Abstract:

This Workshop is supported by the SINANO Institute and by the European Network of Excellence NANOFUNCTION (*Beyond CMOS Nanodevices for Adding Functionalities to CMOS*) funded by the European Commission for the 7th Framework Programme (www.sinano.eu ; www.nanofunction.eu).

Program:

Friday, September 16th (8:30-15:30)

-Common session with Guardian Angels Workshop-

- 8:30 “System architecture for Harvesting”, Herve Fanet, CEA LETI
- 8:55 “Self-Powered Health Patches enabled by a new paradigm: Consume more to consume less”, Chris Van Hof, IMEC
- 9:20 “Development of miniaturized batteries for energy autarkic sensors”, Robert Hahn, Fraunhofer-IZM
- 9:45 “Toward Zero-Power ICT: a European initiative for efficient powering of micro and nanoscale autonomous devices”, Luca Gammaitoni, University of Perugia

- 10:10 Coffee break*

- 10:30 “Energy harvesting from glucose and oxygen. Can biofuel cells power up smart autonomous Systems ?”, Grégoire Herzog, Tyndall
- 10:55 “Vibrational energy scavenging”, Saibal Roy, Tyndall
- 11:20 “Disruptive solar energy harvesting”, Sinano Institute: Enrico Sangiorgi, IUNET, Steve Hall, Univ. Liverpool, Jurriaan Schmitz, Univ. Twente, Mireille Mouis, Anne Kaminski, Grenoble INP, Dimitris Tsoukalas, IMEL, Piotr Grabiec, ITE, Siegfried Mantl, Juelich

-12:00-13:30: Buffet lunch

-13:30 “ Integrated Interfaces for Nanowire Impedance Sensing”, Marco Tartagni, IUNET

-14:00 “ Gas detection using Si Nanowires”, Jean-Pierre Raskin, UCL

-14:30 “ Biosensing using transistors with silicon nanowires”, Shi-Li Zhang,
Uppsala University

-15:00 “Nanosensing”, Sinano Institute: Mikael Ostling, Per-Erik Hellström, KTH,
Alan O’Riordan, Tyndall, Laurent Montes, Mireille Mouis, Grenoble INP

15:30 End of Workshop