MIT-INL Workshop on Nanostructured Materials, Devices and Systems

INL – International Iberian Nanotechnology Laboratory
Braga, 18th of July 2011

Session 1: Graphene Devices and Applications
Chair: Carl Thompson (MIT)
Tomas Palacios, (MIT), "Graphene-Based Microsystems for Environment and Food-Quality Monitoring"
Pablo Jarillo-Herrero (MIT), "Quantum Transport and Optoelectronics in Graphene"
Nuno Peres (U. Minho), "Optical Properties of Graphene"

Session 2: NEMS and Manufacturing
Chair: Tomas Palacios, (MIT)
Dana Weinstein (MIT), "Nano-mechanical Resonators: Devices and Circuits"
Joao Pedro Conde (INESC MN), "Thin film silicon and polymer MEMS resonators"
Martin Schmidt (MIT), "Digital Fabrication of Micro/Nano Systems"

Session 3: Devices for Autonomous Microsystems: Energy and Sensing
Chair: Paulo Jorge Peixeiro de Freitas (INL)
Carl V. Thompson (MIT), "Nanowire and Nanotube Devices for Autonomous Microsystems"
Lifeng Liu (INL), "Self-organized TiO2 nanotubes and related composites for energy storage, conversion and sensing"
Ranjith Pai (INL), "Transparent conjugated polymer films for capturing solar energy"
Sang-Gook Kim (MIT), "PZT based Vibration-to-Electric Energy Generators"
Joao Gaspar (INL), "Bistable Oscillators for Broadband Vibration Energy Scavengers"
Sasha Sadewasser (INL), "Nanostructured chalcopyrite semiconductors for photovoltaic energy generation"

Session 4: Biomedical Platforms
Chair: Joao Gaspar (INL)
Anantha Chandrakasan (MIT), "Ultra-low-Power Wireless Sensors Systems"
Paulo Freitas (INESC MN-INL), "Spintronic Biochips for biomedical applications"
Polina Anikeeva (MIT), "Devices that stimulate brain function"
Dmitri Petrovykh (INL), "Design and analysis of bio interfaces"

Closing
Luis Magalhães, President of the INL Council and President of the Knowledge Society Agency (UMIC), Portugal