

Ungheria - Italia 2013







Politecnico di Torino, Corso Duca degli Abruzzi, 24 - Torino Sala Consiglio di Facoltà Wednesday April 24th, 2013 - 9.00 a.m.

## Bionics at the crossroads of Biotechnology and Information Technology:

From Cellular Wave Computing to Lab on a Chip Technologies

Bionics is a broad area of innovative technologies emerging from the synergy between information technology, biotechnology and nanotechnology, with rapidly growing markets in the biomedical area.

In the last years, the Politecnico di Torino and the Faculty of Information Technology of Pázmány Péter University in Budapest have been jointly organizing a series of workshops in this area, with subjects ranging from Cellular Wave Computing to Lab-on-a-Chip technologies.

At the initiative of the Italian Ministry of Foreign Affairs (Unitá per la Cooperazione Scientifica e Tecnologica), the International Centre of Biotechnology and Genetic Engineering (ICGEB) of Trieste will join this year presenting biotech cooperation in an international setting.

The workshop aims to stimulate discussion which will lead to the definition of the priorities in this area for the next years.

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Program

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9.00	9.10	Opening ceremony Marco Gilli - Rector of the Politecnico di Torino
9.10	9.35	<b>Teaching Quantum Electrodynamics (QED) to engineers</b> Árpád Csurgay - Pázmány Péter University, Budapest
9.35	10.00	Circuit models for quantum systems Pier Paolo Civalleri - Politecnico di Torino
10.00	10.25	Convergence of Biotechnology and Information Technology: The emergence of Bionics Tamás Roska - Pro-Dean, Faculty of Information Technology, Budapest
10.25	10.35	The International Centre for Genetic Engineering and Biotechnology: Programs of cooperation with emerging economies Sándor Pongor - ICGEB, Trieste
10.35	10.55	Computational models of microbial communication and cooperation Sándor Pongor - ICGEB, Trieste
10.55	11.10	Coffee Break
11.10	11.30	Micro and nanoscale biosensors Fabrizio Giorgis - Politecnico di Torino
11.30	11.50	Some problems on Mega Core Architectures Péter Szolgay - Pázmány Péter University, Budapest
11.50	12.10	Disposable point-of-care diagnostic devices: Current trends and future plans Kristóf Iván - Pázmány Péter University, Budapest
12.10	12.30	Lab-on-a-chip solutions for integrating Microfluidic Chips fabricated

with MultiMEMS

Closing ceremony

Marco Gilli and Tamás Roska

12.30 12.50

12.50 13.00

Danilo Demarchi - Politecnico di Torino

**Bio-inspired and neuromorphic circuits**Fernando Corinto - Politecnico di Torino

Registration: eventi@polito.it