

Symposium on Emerging Trends in Electronics

The Premier World Forum on Electronics

Monday, 1 December 2014

Session 1: Emerging Technologies: Circuits and Devices in the Nano Era

08:30-08:45 Welcome by **Giovanni De Micheli**

08:45-09:35 **A Brief History of FD-SOI : A Faster, Cooler, Simpler Alternative Technology for IoT, Mobile and Servers**
Giorgio Cesana (Director, Technology R&D, STMicroelectronics)

09:40-10:30 **Ultra-Low-Power Networked Systems**
Anantha Chandrakasan (Professor and EECS Department Head, MIT)

10:30-11:00 *Coffee break*

11:00-12:30 Panel: **Circuits in Emerging Nanotechnologies**

Adrian Ionescu (Chair - Professor, EPFL), **Rinaldo Castello** (Professor, University of Pavia), **Thomas Ernst** (Team Leader, CEA-LETI), **Seok-Hee Lee** (Senior VP, SK Hynix), **Subhasish Mitra** (Professor, Stanford University), **Ian O'Connor** (Professor, Ecole Centrale de Lyon)

12:30-14:00 *Lunch break*

Session 2: Emerging Computing and Communication Paradigms

14:00-14:50 **Biologically-Inspired Massively-Parallel Computation**
Steve Furber (Professor, University of Manchester)

14:50-15:40 **5G, and its Impact on Electronics**
Gerhard Fettweis (Vodafone Chair Professor, Technical University of Dresden & CFAED Coordinator)

15:40-16:00 *Coffee break*

16:00-17:30 Panel: **Emerging Methods of Computing**

Yusuf Leblebici (Chair - Professor, EPFL), **Luca Benini** (Professor, ETHZ), **Wayne Burleson** (Professor, University of Massachusetts), **Fabien Clermidy** (Team Leader, CEA-LETI), **Enrico Macii** (Vice Rector, Politecnico di Torino), **Angel Rodriguez-Vazquez** (Professor, University of Sevilla)

17:30-18:00 *Coffee break*

18:00-19:30 Panel: **The Role of Universities in the Emerging ICT World**

Martin Vetterli (Chair - President, Swiss National Science Foundation), **Karl Aberer** (Vice President, EPFL), **Adrienne Corboud Fumagalli** (Vice President, EPFL), **Georges Gielen** (Vice Rector, KU Leuven), **Marco Gilli** (Rector, Politecnico di Torino), **Steve Kang** (President, KAIST), **Donatella Sciuto** (Vice Rector, Politecnico di Milano)

20:00-22:00 *Gala Dinner*

21:30-22:00 **Research, Innovation, Entrepreneurship: The Necessary Chain for Sustained Economic Growth**
Alberto Sangiovanni Vincentelli (Professor, UC Berkeley)

Tuesday, 2 December 2014

Session 3: Emerging Design Methods and Tools

08:45-09:35 **The End of EDA - Toward System Design**
Raul Camposano (Entrepreneur)

09:40-10:30 **Organic-Transistor Based Systems and Platforms**
Takayasu Sakurai (Professor, University of Tokyo)

10:30-11:00 *Coffee break*

11:00-12:30 Panel: **Design Challenges Ahead**

Alessandro Cremonesi (Chair - VP, STMicroelectronics), **Marco Casale-Rossi** (Synopsys), **Ton Engbersen** (IBM Zurich Research Laboratory), **Rolf Ernst** (Professor, TU Braunschweig), **Vincent Peiris** (EM Microelectronic), **Massimo Vanzi** (Entrepreneur)

12:30-14:00 *Lunch break*

Session 4: Emerging Alternative Use of Semiconductor Technologies

14:00-14:50 **Thank You, Things**
Jo De Boeck (Chief Technology Officer and Senior VP, IMEC)

14:50-15:40 **From Single-Molecule Biophysics to Neural Interfaces -- The Case for CMOS Bioelectronics**
Ken Shepard (Professor, Columbia University)

15:40-16:00 *Coffee break*

16:00-17:30 Panel: **Alternative Use of Silicon**

Giovanni De Micheli (Chair - Professor and EE Department Head), **Edoardo Charbon** (Professor, TU Delft), **Alex Dommann** (Department Head, EMPA), **Pantelis Georgiou** (Lecturer, Imperial College London), **Bruno Murari** (STMicroelectronics), **Roland Thewes** (Professor, TU Berlin)

17:30-17:45 Closing remarks

