



## FACULTAD DE FÍSICA

# PROGRAMA OFICIAL DE DOCTORADO CIENCIAS Y TECNOLOGÍAS FÍSICAS CONFERENCIA INAUGURAL

## The Nano-Tera.ch program: Health Management and Environment Protection

### Prof. Dr. Giovanni De Micheli

Profesor del Instituto de Ingeniería Eléctrica y Director del Centro de Sistemas Integrados de la Escuela Politécnica Federal de Lausana (Suiza).



**Giovanni De Micheli**, profesor en EPFL, anteriormente en Stanford University, es el responsable del programa Nano-Tera.ch. Educado en el Politécnico de Milán y en la Universidad de California en Berkeley ha recibido destacados galardones en su carrera, entre los que cabe mencionar el D. Pederson Award (mejor artículo en IEEE Transactions on CAD/ICAS, 1987), la Golden Jubilee Medal (IEEE ICAS, 2000), el 2003 Emanuel Piore Award o el 2012 IEEE/CAS Mac Van Valkenburg Award, entre otras distinciones. Es Fellow de ACM y de IEEE, y miembro de la Academia Europea.

**Abstract:** The Nano-Tera.ch program fosters the use of advance nano and info technologies for health and environment monitoring. Electronic-health or E-health is a broad area of engineering that leverages transducer, circuit and systems technologies for applications to health management and lifestyle. Scientific challenges relate to the acquisition of accurate medical information from various forms of sensing inside/outside the body and to the processing of this information to support or actuate medical decisions. E-health systems must satisfy safety, security and dependability criteria and their deployment is critical because of the low-power and low-noise requirements of components interacting with human bodies. E-health is motivated by the social and economic goals of achieving better health care at lower costs and will revolutionize medical practice in the years to come. In a similar vein, Environment monitoring and protection requires also sensors, circuits and networks. Scales are different as compared to E-health, but some of the underlying problems have commonalities. This talk will consider research issues in these domains and shows practical application that can make a difference in everyday life.

**Fecha y hora:** viernes, 6 de noviembre de 2015, 12:00.

**Lugar:** AULA 7 de la Facultad de Física, Campus de Reina Mercedes.