



UNIVERSITÀ DI PISA
DIPARTIMENTO DI INGEGNERIA DELL'INFORMAZIONE
Dottorato di Ricerca in Ingegneria dell'Informazione

Doctoral Course

“Design of Multi Sensor biomedical integrated circuits”

Dr Stefano Stanzione

IMEC-NL Eindhoven, The Netherlands

Short Abstract

The growth of wearable health devices is due not only to the curiosity to know more about our physical condition, but also to the dream of having a longer and healthier life by means of improved prevention. The main challenge is that medical grade accuracy needs to be achieved while the subject just lives his own life, without any constrain or discomfort. For allowing this dream to come true, multiple innovations have been done both on circuits and systems. The main challenge has been (and will be) to achieve medical grade signal integrity with very low power consumption, while avoiding any constrain or discomfort for the user.

Course Contents in brief:

- Topic 1: Interface between electronics and body
- Topic 2: System architectures for sensing biopotentials
- Topic 3: Instrumentation amplifier design
- Topic 4: Sensing more than just biopotentials

Total # of hours: 20

CV of the Teacher

Stefano Stanzione received the M.S. degree in electrical engineering and the Ph.D. degree from the University of Pisa, Pisa, Italy, in 2006 and 2010, respectively. His Ph.D. work focused on the analog building blocks of autonomous UHF RFID tags. He joined the Holst Centre/imec, Eindhoven, The Netherlands, in 2010, where he is currently an Analog Design Engineer. His current research interests include ultralow-power circuits for energy harvesting and battery management. Dr. Stanzione has been a member of the Analog Technical Program Sub-Committee of ISSCC since 2014.

Room and Schedule

Room: *Aula Riunioni del Dipartimento di Ingegneria dell'Informazione, Via G. Caruso 16, Pisa – Ground Floor*

Schedule:

26/06/2017 – 9:00/13:00 and 14:30/17:30

27/06/2017– 9:00/13:00 and 14:30/17:30

28/06/2017– 9:00/13:00 and 14:30/16:30