School of Electrical and Computer Engineering

Presents

Prof. Danilo Demarchi

Date: Wednesday, Nov. 30, 2016
Location: TSRB, Room 423
Time: 10:30 am – 12:00 pm

Title: Bio-Inspired Electronics for Biomedical Applications and Robotics

Abstract: Prof. Demarchi of Politecnico di Torino, Department of Electronics and Telecommunications, will describe the bio-inspired approach applied in his research group for the realisation of low-power and low-cost applications, in the fields of biomedical systems and robotics. Quasi-Digital Circuits, merged with the Neuromorphic approach, give the possibility of designing efficient systems in terms of power consumption and smart integration. The presented solutions consider too the use of wireless transmission, based on Impulse Radio Ultra Wideband (IR-UWB) technology.

Short Bio: Danilo Demarchi received the Engineering Degree and the Ph.D. in Electronics Engineering from Politecnico di Torino, Italy, in 1991 and 1995, respectively. Full position as Associate Professor at Politecnico di Torino, Department of Electronics and Telecommunications, with the tenures of "Bio-Micro&Nano Systems" for Biomedical and Electronics Engineering, of "CAD for Microsystems" for Electronics Engineering and Nanotechnologies for ICT, of "NanoElectronics" for the PhD School in Electronics and of "Electronics" for the Bachelor Degree in Biomedical Engineering. Lecturer at EPFL Lausanne for the course "Nanocomputing", Biomolecular Computing module, at the Electrical Engineering PhD School.

Currently working on micro and nano systems for electronics and biomedical applications. Author and co-author of two patents and more than 180 scientific publications in journals and conference proceedings.

Currently leading the MiNES Group (Micro&Nano Electronic Systems, http://mines.polito.it. of the Politecnico di Torino and, as Associated Researcher, coordinating the Microelectronics group at the IIT@Polito Department. Coordinator or Partner of many European Projects in FP6, FP7 and Horizon2020. He is Senior Member of IEEE, Member of the BioCAS Technical Committee, Associate Editor of the IEEE Transactions on Biomedical Circuits and Systems (TBioCAS), of IEEE Sensors and of the Springer Journal BioNanoScience.