- [17] P. Di Marco, A. Leoni, L. Pantoli, V. Stornelli and G. Ferri, "Remote sensor networks with efficient energy harvesting architecture," 2016 12th Conference on Ph.D. Research in Microelectronics and Electronics (PRIME), Lisbon, 2016, pp. 1-4.
- [18] P. Di Marco, V. Stornelli, G. Ferri, L. Pantoli, A. Leoni, Dual band harvester architecture for autonomous remote sensors, Sensors and Actuators A: Physical, Volume 247, 15 August 2016, Pages 598-603, ISSN 0924-4247.
- [19] Tashi, M. S. Hasan and H. Yu, "Design and simulation of UHF RFID tag antennas and performance evaluation in presence of a metallic surface," 2011 5th International Conference on Software, Knowledge Information, Industrial Management and Applications (SKIMA) Proceedings, Benevento, 2011, pp. 1-5.
- [20] L. Pantoli, V. Stornelli, G. Leuzzi and A. Di Carlofelice, "A single transistor post selector active tunable filter for radio receivers applications," 2014 International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits (INMMiC), Leuven, 2014, pp. 1-3.
- [21] G. Ferri, V. Stornelli, A. Celeste, "Integrated rail-to-rail low-voltage low-power enhanced DC-gain fully differential operational transconductance amplifier", ETRI Journal, Volume 29, Issue 6 Pages 785-792, 2007.
- [22] A. De Marcellis, A. Depari, G. Ferri, A. Flammini, D. Marioli, V. Stornelli, A. Taroni, "A CMOS integrable oscillator-based front-end for high dynamic range resistive sensors", IEEE Transactions on Instrumentation and Measurement, Vol. 57, Issue 8, Pages: 1596 – 1604, 2008.
- [23] S. S. Hashemi, M. Sawan and Y. Savaria, "A High-Efficiency Low-Voltage CMOS Rectifier for Harvesting Energy in Implantable Devices," in IEEE Transactions on Biomedical Circuits and Systems, vol. 6, no. 4, pp. 326-335, 2012.
- [24] "A Microwatt Charge Pump Boosts 1 V to 1.8 V at 90% Efficiency, Providing "Always On" Standby Power for Microcontrollers", Silicon Lab Technical paper.



Leonardo Pantoli Leonardo Pantoli received the Laurea (M.S.) degree in electronic engineering (cum laude) and Ph.D. degree in electrical and information engineering from the University of L'Aquila, L'Aquila, Italy, in 2006 and 2010, respectively. In 2007 and 2008, he spent several months with the Communications Engineering Department, University of Cantabria, Santander, Spain, and the C2S2 Department, XLIM Research

Institute, Brive La Gaillarde, France. He is currently a Researcher with the University of L'Aquila. His research activities include the development of methods and algorithms for the design of microwave nonlinear circuits, stability analysis under the large-signal regime, active filters, and monolithic microwave integrated circuit (MMIC) design.



Alfiero Leoni was born in L'Aquila, Italy. He received the Bachelor "Laurea" degree in 2013 and master "Laurea" degree (cum laude) in electronic engineering in 2016. Several months before his master laurea degree, he joined as an external collaborator the Department of Industrial and Electronic Engineering of the University of L'Aquila where he is actually involved as Ph.D. student. His research activity mainly consists in the design of analog

electronic circuits and systems for energy harvesting, industrial and microwave applications.



Vincenzo Stornelli was born in Avezzano, Italy. He received the "Laurea" degree (cum laude) in electronic engineering in 2004. In October 2004, he joined the Department of Electronic Engineering, University of L'Aquila, L'Aquila, Italy, where he is involved as Associate Professor with problems concerning current mode applications; physics-based simulation; computer-aided design

modeling characterization and design analysis of active microwave components, circuits, and subsystems; and the design of integrated circuits for RF and sensor applications. He serves as a reviewer for several international journals. His research interests include several topics in computational electromagnetics, including microwave antenna analysis for outdoor ultrawideband applications.



Giuseppe Ferri was born in L'Aquila, Italy. He received the "Laurea" degree (cum laude) in electronic engineering in 1988. In 1991, he joined the Department of Electronic Engineering, University of L'Aquila, L'Aquila, Italy, where he is actually a full professor of Electronics and Microelectronics at the University of L'Aquila, Italy. His research activity mainly concerns the design of

analog electronic circuits for integrated sensor applications both in voltage and in current-mode. In this field of research he is author or coauthor of 2 patents, 2 international books, one book chapter and more than 330 publications in international journals and conference proceedings. He is an IEEE senior member and Editor of Sensors and of Journal of Circuits, Computers and Systems.