

Special Issue on
“Augmented RFID sensing systems for environment, healthcare and safety”

In the era of IoT (Internet of Things) and (IIoT) Industrial Internet of Things, the Radio-Frequency IDentification (RFID) plays a key role for enabling a plethora of pervasive applications that can be useful in numerous fields from industry to healthcare. Environmental sensing is one of the most prioritized scenarios to be investigated in the green-related electronic and electromagnetic systems in view of climate change, to which academic and industrial RFID communities are called upon to take care.

Despite the rise of high-quality technical papers in the last decade demonstrating the feasibility and enormous advantages of unwired sensing, passive, active and chipless RFID sensing still labours to emerge as a commercial standard of sensor applications in numerous scenarios such as precision agriculture, shipping, manufacturing, and healthcare. The purpose of this special issue “Augmented RFID sensing systems for environment, healthcare and safety” is to highlight what are the needs of industries related to these systems and to push research toward the study of appealing solutions for use in the commercial field.

To bring the potential of combining RFID systems, sensors and ICs to a broader audience, research papers, surveys and descriptions of successful industrial case studies are encouraged on, but not limited to, the following relevant topics related to RFID-based system:

- Environmental sensing through RFID link
- Passive RFID tags with microcontrollers and sensors
- BAP RFID tags with microcontrollers and sensors
- Design of chipless tag sensors
- RFID sensing applications
- Workplace safety
- RFID sensing: challenges and trends
- Successful RFID sensing case studies
- Design of RFID sensor tags with Augmented RFID Localization
- Circuit Design for RFID sensor tags
- Green technologies for RFID tags
- RFID applications in healthcare, precision agriculture, transportation, safety, security, inventory management, logistics, fashion, retail
- Smart and programmable tags
- RFID in wellness

Important Dates:

Submission Deadline: December 1, 2022
 First Review Due: January 15, 2023
 Revision Due: February 15, 2023

Second Review Due: March 15, 2023
 Final Manuscript Due: April 15, 2023
 Publication Date: June 2023

Submission Guidelines: Authors are requested to electronically submit their original manuscripts through the IEEE Manuscript Central at <https://mc.manuscriptcentral.com/jrfid>, according to the format described at <https://journals.ieeeauthorcenter.ieee.org/>. The manuscript type for this special issue is “RFID Sensing”.

Guest Editors:	
Dr. Andrea MOTRONI	Department of Information Engineering, University of Pisa, Pisa, Italy (andrea.motroni@unipi.it)
Dr. Andrea RIA	Institute of Electronics, Information Engineering and Telecommunications, Italian National Research Council, Pisa, Italy (andrea.ria@ieiit.cnr.it)
Prof. Luca CATARINUCCI	Department. of Innovation Engineering, University of Salento, Lecce, Italy (luca.catarinucci@unisalento.it)
Prof. Gaetano MARROCCO	Department. of Civil Engineering and Computer Science, University of Roma Tor Vergata, Rome, Italy (gaetano.marrocco@uniroma2.it)
Prof. Stewart THOMAS	Department of Electrical and Computer Engineering, Bucknell University, Lewisburg, PA, USA (stj015@bucknell.edu)
Prof. Rahul BHATTACHARYYA	Auto-ID Labs, Massachusetts Institute of Technology, Cambridge, MA, USA (rahul_b@mit.edu)