Special Issue

RF Energy Harvesting and Wireless Power Transfer for IoT

Message from the Guest Editors

Internet of Things (IoT) technologies are becoming the main connectivity backbone of a future data-driven sustainable society. In this regard, energy harvesting (EH) techniques are an attractive solution, as they allow externally recharge batteries, and thus may constitute key components of future sustainable IoT networks. This Special Issue focuses specifically on radio-frequency (RF) EH and wireless power transfer (WPT) technologies, which have a strong potential for energizing low-power IoT deployments. Despite all the technological advances in RF-EH and WPT in recent years, there are still many challenges and open problems to resolve, especially those related to increasing the end-to-end system efficiency, supporting ubiquitous energy accessibility with stringent quality-of-service guarantees, holistic integration with wireless information transfer systems, and transparently complying with electromagnetic field radiation constraints to mitigate the fear of wireless. Therefore, novel RF-EH/WET mechanisms and technological developments are still necessary to cope with these challenges and promote more standardization attempts and commercial solutions/products.

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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