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Passive Wireless and Self-Powered Wireless Sensors and Systems

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Message from the Guest Editors

Passive wireless sensors are a type of device that perform sensing and signal transmission when they are activated by external stimuli. Representative devices include piezoelectric resonators, LC resonators, surface acoustic wave resonators, etc. Self-Powered Wireless Sensors, on the other hand, are a class of devices and systems that can work without relying on an external power supply. These devices may provide either electrical signal output to form self-driven sensors or energy to form self-powered sensor systems. This Special Issue aims to provide an opportunity to address the aspects of simulation, design, materials, fabrication and applications of Passive Wireless and Self-Powered Wireless Sensor systems from both academic and industrial perspectives. Contributions that include novel sensor design, operation principles, energy collection, energy collection circuits and innovative sensors based on new concepts such as parity-time symmetry or coherent perfect absorption, etc., are particularly encouraged.

Keywords

- self-powered sensors
- passive sensors
- energy harvesting
- wireless sensors
- resonant sensors
- piezoelectric sensors
- wearable self-powered sensors



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Special Issue



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Message from the Editor-in-Chief

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