Special Issue

Novel Trends in Self-Powered Sensing and Its Applications in Civil Infrastructure

Message from the Guest Editor

Rapid advancements in intelligent monitoring systems have led to the invention of various wireless sensing technologies. Recently, a new generation of wireless sensor networks based on self-powered sensing has become a reality by bridging the gap between the harvested energy and the energy required for sensing, computation, storage, and communication. Self-powered sensors are increasingly being used as promising solutions to conventional wireless sensor networks in civil infrastructures for applications, such as structural health monitoring and condition assessment, transportation infrastructure, corrosion prediction in reinforced concrete structures, etc. It is anticipated that utilization of self-powered sensing will increase due to their unique abilities to efficiently harvest the needed power from the signal being sensed as well as from other energy sources (e.g., ambient vibrations, solar energy, etc.), which will result in reliable structural/infrastructural health monitoring and condition assessment in smart cities. This Special Issue will overview the research progress in novel trends in self-powered sensing technology in civil infrastructure.

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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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