



sensors



an Open Access Journal by MDPI

Advances in Cognitive Radio Networks

Guest Editor:

Dr. Donatella Darsena

Department of Engineering,
University of Naples Parthenope,
80133 Naples, Italy

Deadline for manuscript
submissions:

closed (10 December 2021)

Message from the Guest Editor

The need for efficient utilization of radio spectrum resources is a key requirement in modern wireless networks, as existing and new wireless applications and services require ever-higher transmission capacity and performance. In this context, cognitive radio (CR) networks, which can adapt wireless transmission schemes through dynamic spectrum access (DSA), represent a valid and well-studied solution. The CR network infrastructure plays a fundamental role in managing information about radio devices and their operating environments, evaluating the effects of interference, and enabling cooperation among devices.

Recently, energy efficiency (EE) is emerging as a major paradigm for next-generation wireless systems. Combining energy harvesting (EH) with CR can improve spectral as well as energy efficiency. In these systems, referred to as radio frequency (RF)-powered CR networks, a CR transmitter harvests RF energy when the legitimate user is present, and uses such energy for its own data transmission when the spectrum is vacant.

This Special Issue will bring together innovative developments and synergies in the field of cognitive radio networks.



mdpi.com/si/44811

Special Issue



sensors



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria
Elettrica e dell'Informazione
(Department of Electrical and
Information Engineering),
Politecnico di Bari, Via Edoardo
Orabona n. 4, 70125 Bari, Italy

Message from the Editor-in-Chief

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.

Author Benefits

Open Access : free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Ei Compendex](#), [Inspec](#), [Astrophysics Data System](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Instruments & Instrumentation*) / CiteScore - Q1 (*Instrumentation*)

Contact Us

Sensors Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sensors
sensors@mdpi.com
[X@Sensors_MDPI](#)