Special Issue

Hardware-Based Security Techniques for Smart/Intelligent Sensor Systems

Message from the Guest Editors

This Special Issue invites the submission that focus on software and hardware sensor vulnerability assessments, including novel hardware-based security techniques, trustworthy architectures, and security isolation methodologies based on ARM trust zone technology designed to protect these systems. Submissions may target a variety of platforms, including autonomous mobile systems, ARM processor cores, drone flight control systems, reconfigurable systems, biomedical sensing systems, cyber–physical systems, RFID, IoT devices, and embedded sensor modules.

- Hardware-based defensive strategies against side-channel attacks on sensing units.
- Lightweight hardware mechanisms to counter data spoofing attacks in drone systems.
- Vulnerability assessment of UAV sensor data.
- Energy-efficient data encryption techniques tailored for IoT devices and sensors.
- Intrusion detection systems leveraging physical characteristics of sensing units.
- Hardware-level device identification techniques to mitigate sensor device cloning.
- Security assessment of hardware vulnerabilities in mobile platforms and autonomous aerial systems.
- Machine learning and federated learning techniques tailored for IoT devices and sensors.

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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.

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