

2019 IEEE International Conference on Industrial Informatics (INDIN'19)

Special Session/ Organized Session on Low Power Smart Sensing for the Industry 4.0 organized by

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Call for Papers

Low power wireless sensor networks are essential to the industry's 4.0 operability. These infrastructures, associated with concepts such as the Internet of Things and the Cyber-Physical Systems, make the smart factory a reality. This is a multidisciplinary research field, through which it is possible to achieve significant progress. Through low power intelligent sensor networks, it is possible to acquire the necessary information for the collaboration in the production process. In this scenario, the adoption of low power wireless networks with a high number of nodes, some of them with energy restrictions, has given rise to the developed of new energy harvesting methods and associated energy management mechanisms. On the other hand, the cooperation of the various elements of the network is only possible if standards are adopted to promote integration and, simultaneously, interoperability mechanisms are provided, allowing the co-habitation of different standards. At the same time, new development platforms are available to test and validate aspects such as: power consumption, communication management schemes, wake-up radios energy performance, or, standard certification.

This special session aims to provide a forum for discussion that will attract scholars and industry practitioners for sharing and discussing the latest advances in this scientific field. Participants will have space to demonstrate, in the room, remotely, or offline, the operation of solutions developed by them. Topics in this session include, but are not limited to:

- Low power wireless sensors
- Energy harvesting mechanisms
- Hardware/software design and implementation of low power smart sensors
- Security issues under low power operation

- Parallel vs distributed systems
- New educational technologies for low power smart sensors in Industry 4.0
- Standards, test, and certification of low power smart sensors

Submissions Procedure and Deadlines: All the instructions for paper submission are included in the conference website <https://www.indin2019.org/>