





2020 IEEE INTERNATIONAL WORKSHOP ON

## Metrology for Industry 4.0 & IoT

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METROIND4.0&IoT

**CNR** - NATIONAL RESEARCH COUNCIL HEADQUARTERS - **Piazzale Aldo Moro** 

## **CALL FOR PAPERS** for the Special Session on THE INDUSTRY 4.0 PARADIGM FOR ENERGY EFFICIENCY: MEASUREMENTS, TECHNIQUES, METHODOLOGIES, STRATEGIES AND REQUIREMENTS

Nowadays, the necessity to preserve raw materials without limiting the level of quality of life currently achieved is pressing. All over the world, researchers and companies, as well as legislators, are active in this field and are trying to develop new technologies and new strategies to meet these needs. Pushing on energy efficiency is one of the elective politics to satisfy these apparently contrasting requirements. The question is if the classical concept of energy efficiency can evolve in something new that could allow to further increase the performance and efficacy of current politics.

Watching at the efforts that are being made all over the world, it is clear that the achievement of this goal can only pass through a pervasive use of the technologies on which the IoT is based and, therefore, of the Industry 4.0 paradigm. Distributed static and dynamic sensors, which interact with the internet and which are able to store and manage large quantities of data in the cloud and their smart processing seems to be the way traced to transform the classical concept of energy efficiency into an even more performing tool to safeguard the planet and the level of quality of life currently achieved.

This special session welcomes original contributions aiming at energy efficiency with the use of innovative sensors, measuring systems, metrics, algorithms, systems or IoT technologies as well as the presentation of new strategies, methodologies and requirements that can stem from these researches.

## **MAIN TOPICS**

- Smart Grid, Smart City;
- Smart Sensors;
- WSN;
- Algorithms for the management of WSN;
- Algorithms for the management of Data;
- Alternative Energies;
- Energy harvesting;
- Complex Systems;
- Power Quality;
- Electrical Efficiency;
- Energy Efficiency;
- New Policies, Strategies, Requirements and Standards for energy efficiency;
- New measurement systems for energy efficiency;
- Case studies even in factories;
- Specific instrumentations;

- Reliability, validity, and accuracy of sensors, measuring systems and systems;
- Data fusion or processing for accurate signal estimation.





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