



2020 IEEE INTERNATIONAL WORKSHOP ON Metrology for Industry 4.0 & IoT

ROMA, ITALY | JUNE 3-5, 2020

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

CALL FOR **PAPERS** for the Special Session on COMPUTATIONAL SENSING FOR IOT INDUSTRIAL AND **MEDICAL APPLICATIONS**

The computational and communication capabilities available in almost all electronic devices are fostering new ways of performing and consuming measurements in applications. Image sensing in computational photography is the most prominent example of such integration, in which the combined computational control of the physical data sampling and the computing processes has enabled new and enhanced ways we capture our moments in photography. Similar strategies are possible in other sensing domains under the combination of transducers control, communication, data fusion and advanced signal processing techniques. These sensing techniques may impact industrial and medical applications in several ways, such as, for example:

- Increasing the quality of recorded data under fixed hardware complexity and costs,
- Reducing the costs of measurements systems, without reducing the quality of recorded data,
- Enabling the recording of information impossible under traditional sampling strategies,
- Including lateral parameters and trade-offs, such as robustness, in the sensing systems design.

In this special session, we invite researchers to share their finding in computational sensing for industrial and medical applications. Works describing theoretical and practical solutions are welcome, as well as papers describing the use of smart IoT sensors solutions in industrial and medical scenarios.

MAIN TOPICS

- Computational sensing systems design, modelling, implementation and evaluation
- Networks of coordinated IoT sensing devices
- Smart sensor design, modelling, implementation and evaluation
- Computational sensing systems in
- Algebraic and Graph signal processing for distributed sensor data
- Compressive sensing applications to distributed sensor data
- Solutions based on special-purpose hardware for smart IoT sensors
- Models for indirect sensing

ORGANIZERS



Luca Vollerio

Università Campus Bio-Medico di Roma



l.vollerio@unicampus.it



Samuel W. Oluwarotimi

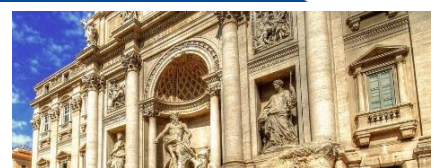
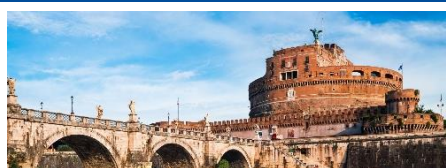
Shenzhen Institutes of Advanced Technology



samuel@siat.ac.cn

www.metroind40iot.org/special-session-20

info@metroind40iot.org



MetroInd4.0&IoT 2020