





### 2020 IEEE INTERNATIONAL WORKSHOP ON

## **Metrology for Industry 4.0 & IoT**

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

# CALL FOR PAPERS for the Special Session on LOCALISATION FOR INDUSTRY 4.0

Accurate localisation of assets, robots and people would be a key enabler for Industry 4.0 applications in warehouses, production sites, retails especially in cooperative, high dynamic production sites of the future. The set of possible localisation technologies in an industrial environment is really wide, as it includes radio-frequency, vision, ultrasonic, magnetic and laser sensors. A number of challenges has been hindering the deployment of accurate positioning sensing systems and techniques to date. Moreover, an accurate characterisation of the location uncertainty is strictly dependent on the employed technology and the application scenario.

### **MAIN TOPICS**

The special session is focused on new positioning, tracking and navigation solutions for Industry 4.0 scenario. The main topics are related to:

- Innovative localisation methods in Industry 4.0
- · Robot navigation and tracking
- People positioning solutions
- · Localisation of static/mobile agents
- Optical localisation
- Ultrasonic localisation
- Laser localization
- Magnetic sensors
- Wi-Fi localisation
- Bluetooth localisation
- Ultra Wide Band localisation
- Localisation with Radio Frequency Identification Systems

- Hybrid positioning methods based on data-fusion algorithms
- Metrics, algorithms and position measurement uncertainty

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