





### 2020 IEEE INTERNATIONAL WORKSHOP ON

# Metrology for Industry 4.0 & IoT

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

# CALL FOR PAPERS for the Special Session on **INTERNET OF THINGS (IOT) FOR DISASTER MANAGEMENT**

In many real-world internet of things (IoT) applications, there is a requirement for timely data collection and reporting. Disaster management requires a coordinated effort involving remote capture and monitoring of data from the affected area in order to facilitate timely response for rescue, relocation, food and water provisioning through to the restoration of vital services such as telecommunications and transport. The growing use of IoT devices equipped with antenna and meteorological sensors can be used to collect data from remote environment. A collection of such devices are able to form a wireless sensor network and gather required information and send it to other devices or base stations which are out of the transmission range to provide early warning detection. However, there are several issues for effective employment of these systems such as: dynamic and intelligent management of the IoT sensors and devices on the ground, limited power of IoT devices, communication between IoT devices, accuracy of meteorological sensors as well as connectivity of the IoT devices and coverage of the region of interest.

This special session aims at bringing together scholars from academia and industry to discuss and present the latest research and findings on all the aspects of IoT for disaster management.

#### **MAIN TOPICS**

Topics of interest include but are not restricted to:

- Deployment of meteorological sensors for disaster monitoring;
- Communication Architectures;
- · Security and privacy in disaster management;
- Energy harvesting and power management of IoT devices;
- Reliability and accuracy of meteorological sensors for disaster monitoring;
- Connectivity and coverage;
- Wireless Sensor and actuator networks for disaster management;
- Data fusion and aggregation;
- Cloud/edge/fog computing for disaster management;
- Modelling and Performance evaluations;
- Connectivity and coverage;
- Novel applications of IoT in disaster management;
- Unmanned Aerial Vehicles (UAVs) for disaster management.

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