



# 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 LARGE-SCALE TRACEABILITY OF DIGITAL MEMS SENSOR: STATISTICAL METHODS AND IN-LINE CONTROL SYSTEMS

Traceability and calibration methods on large-scale of digital sensors, based on MEMS/NEMS technology, is a metrological challenge, due to the huge quantities of digital MEMS actually produced. Technical performance and reliability of digital sensors are continuously increasing, while costs drive down, therefore industry moves from testing and calibrating every device, towards statistical sampling to reduce manufacturing costs while delivering statistically acceptable levels of performance and reliability. Manufacturers see value in a traceability chain to the national laboratories, however, the currently used reference devices and testing protocols are not always compatible with their requirements. As a consequence, the possibility to provide traceability and acceptable levels of reliability to digital MEMS sensors on large-scale, based on statistical approaches, sampling methods, production quality survey and the realization of traceable systems, for in-line control on the manufacturer's production line, are an actual priority for industry, as well as a needed requirement for end-users in actual applications.

### MAIN TOPICS

Submissions are welcomed on (but not limited to):

- Calibration and traceability of digital MEMS sensors
- Large-scale calibration
- Sampling methods
- Production quality control
- In-line calibration
- On-line calibration
- Data quality management
- Data aggregation

### ORGANIZERS



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