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IEEE

Università degli Studi di Napoli Federico II

2019 IEEE INTERNATIONAL WORKSHOP ON

Metrology for Industry 4.0 and IoT

NAPLES, ITALY | JUNE 4 - 6, 2019

MetroInd4.0&IoT
NAPLES / 2019

CALL FOR PAPERS for the Special Session on

MEASUREMENT SYSTEMS IN THE INDUSTRIAL IOT ERA

ABSTRACT

The Internet of Things There is pushing in the market toward a continuous improvement in terms of new devices, scalable systems and analysis algorithms. In particular, measurements systems are going to benefit of this new evolution, which opens new scenarios in all application sectors thanks to the increased connectivity and virtually unlimited bandwidth.
This is also true in the industrial domain, and although there are similarities between IoT for general systems and industrial systems, (e.g. scalability) there are significant differences because industrial systems must have low latencies, critical missions, high predictability and resilience to failures. Hence, there is justification for specific measurement systems for Industrial IoT applications (industrial Internet, Industry 4.0).
The session will bring together all the innovative ideas and technologies about measurement challenges in the Industrial IoT era, ranging from system architecture, uncertainty analysis and applications with the aim of increasing the efficiency of industrial processes in terms of cost, productivity, and predictive maintenance.

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MORE INFORMATION

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www.metroind40iot.org/special-session-2

TOPICS

Submissions are welcomed on (but not limited to):

- Distributed measurement systems based on Industrial IoT infrastructure
- Architectures for robust and predictable measurement systems in Industrial IoT applications
- Uncertainty propagation in measurement systems for Industrial IoT
- IoT wireless technologies applied to industrial measurement system
- LPWAN wireless technology for sensor deployment in industrial context
- Inclusion of heterogeneous network technologies (e.g. traditional industrial fieldbus) into IoT based measurement systems
- Fault tolerant measurement systems based on IoT paradigms for industrial application
- Security of measurement systems of industrial application with IoT enabled interfaces
- Enabling of predictive maintenance by means of IoT based measurement systems
- Efficient design and implementation of virtual measurement systems in terms of the timing and uncertainty constrains
- Allocation of measurement tasks and algorithms at different infrastructure levels ranging from edge to cloud
- Increasing of the effectiveness of measurement result presentation by means of cloud based infrastructure
- Supporting service level virtualization for distributed measurement systems in industrial context
- Case studies of Industrial IoT measurement systems

INDUSTRY4.0
AUTOMATION CONNECTION CLOUD COMPUTING IOT BIG DATA SYSTEM INTEGRATION