



2019 IEEE INTERNATIONAL WORKSHOP ON

# METROLOGY FOR AGRICULTURE AND FORESTRY



 24-26 OCTOBER 2019

 **PORTICI – ITALY**  
University of Naples Federico II  
Department of Agricultural Sciences

## CALL *for* PAPERS



*For the special session on:*

## GROUND-BASED AND REMOTE SENSING TECHNIQUES FOR ECOLOGICAL FORESTRY

### ABSTRACT

Modern advances in sensor technologies, wireless communications, and software applications have simplified the development of multiple environmental sensors and sensor networks that can help the researchers in measuring, mapping and monitoring a wide range of single trees and/or forest parameters.

Remote and proximal sensing systems also provide a multitude of information about forest environment offering a great benefit since repetitive wide area coverage can be performed at a low cost and low time consuming.

These developing technologies, generating multiple line of information at high temporal and spatial scales allows a deeper understanding of physical, biological and ecological features of forest lands, supporting forest management and operations.

The aim of this special session is to collect the state-of-the-art research and the future challenges of leading scientists in these advancing technologies and their multiple application in forest environment.

Contribution must present innovative methods and approaches, or novel applications of existing tools.

### TOPICS

Contributions on the following topics are welcome:

- Sensor networks;
- Multi-sensor systems;
- Wireless sensors;
- Sensor fusion;
- Signal processing;
- Mechanical and microelectromechanical systems (MEMS);
- Smartphone based sensors and apps for forest accessibility;
- Remote and proximal sensing;
- Biomass yield predictions, forest mapping and inventory, precision forestry;
- Short- and long-term environmental change, monitoring regeneration, regrowth, succession, encroachment, gap dynamics, invasive species;
- Assessment and monitoring of forest biophysical states, natural and human induced disturbances and damages: harvesting, forest fires, storms, insects, disease, drought, frost
- Forest conservation and sustainability;
- Functioning, phenology, and disturbance;
- Carbon monitoring;

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### MORE INFORMATION

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