



Advanced Sensing Technologies for Environmental Monitoring Applications

Guest Editors:

Prof. Dr. Pedro Silva Girão

Instituto de Telecomunicações
DEEC/IST, Av. Rovisco Pais, 1,
1049-001 Lisboa, Portugal

psgirao@ist.utl.pt

Prof. Dr. Octavian Postolache

Instituto de Telecomunicações,
Universidade de Aveiro Campus
Universitário de, R. Santiago,
3810-193 Aveiro, Portugal

opostolache@lx.it.pt

Prof. Dr. Sergio Rapuano

Facoltà di Ingegneria, Università
degli Studi del Sannio, 82100
Benevento, Italy

rapuano@unisannio.it

Message from the Guest Editors

Environmental monitoring includes the measurement of the three main environmental matrices—air, water, soil—environmental noise and vibration, and the following materials: gases; drinking water, surface water, groundwater and wastewater; solid and liquid waste; human, plant and animal bodies as well as organs; and synthetic products. The most interesting measuring techniques are those that allow real-time automated measurements either in situ or remotely. Particularly challenging and requiring the development of new sensing solutions is the measurement of several chemical quantities and materials.

This Special Issue aims to provide an overview of current studies and achievements on advanced sensing technologies for environmental monitoring applications. Potential topics include but are not limited to the following:

- Data evaluation and assessment
- Instrumentation for environmental measurement
- Monitoring systems
- Remote sensing
- Sensors and actuators
- Standards for environmental measurements

Keywords: sensors; sensing techniques; environmental monitoring

