

Special Issue

New Trends in Optical Sensing Techniques

Message from the Guest Editors

Optical sensing has been evolving rapidly in last decades, allowing us to measure with high precision different variables such as refractive index, gas concentration, temperature, curvature and torsion. In general, it is necessary to consider the physics of the materials, light sources and detectors, the interaction of matter with light for the design, simulation and implementation of an optical sensing system. Moreover, it is compulsory to consider aspects related to the signal acquisition and processing system that will be used to recover the sensor signal and to provide the overall output. Therefore, this Special Issue is intended for the presentation of new techniques for modeling, designing, fabricating and implementing optical sensing systems and their applications. Topics include, but are not limited to, the following domains:

- All-fiber sensors.
- Laser-based sensors.
- Sensors based on interferometric systems.
- Biosensors.
- Optical chemical sensors.
- Application of machine learning algorithms in optical sensing systems.
- Artificial intelligence on sensor data.
- Multiparametric optical sensing systems.
- Optical sensing for special applications.

Guest Editors

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