

Study of the sensitivity of sensors based on photonic crystal fibers

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Abstract —Sensors have known a global growth in the market regarding the different technologies. Depending on the nature of the phenomenon to be detected, there are biological, chemical and physical sensors. The optical sensors are an important example that defines the physical sensors. The sensors in integrated optics present an excellent alternative for the detection of a physical variable such as: temperature, pressure... In this context, we determine the optical sensors and their different techniques of detection which are based on the variation of an information characterizing the light wave based on the Microstructured Fiber Sensors which are at the base of the realization of a vast range of sensors, sweeping almost all the measurable physical magnitudes thanks to a better sensitivity for a shorter time of detection with a simpler handiness and lower costs of cost by measurement.

Keywords: Sensor, Sensitivity, Integrated Optic, Optic Sensor, Microstructured Fiber Sensor

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Topics

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