Implementation of Pressure Sensor of Optical Fiber Using Optical Interferometer

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Abstract

In present work, two types of Interferometric Fiber Optic Sensor (Fabry – Perot & Modal Sensor) have been demonstrate and investigated. The main parameter studied of this contribute is the sensitivity, the strain could be induced by make a stress on the optical fiber. The strain effect at the fiber due to variation of the intensity in the output of the optical fiber. Then, the modes of electromagnetic waves that propagate in the fiber could be analyzed to determine the sensitivity depend on fringe rates. I conclude from this study the Extrinsic Fabry – Perot Interferometry structure is more sensitive than Modal Sensor.