

Overview of Fiber Optic Gyroscopes

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Abstract : A key development in the field of inertial sensors, fiber-optic gyroscopes (FOGs) are currently thought to be a competitive alternative to mechanical gyroscopes for inertial navigation and control applications. For the past few years, research and development efforts have been conducted all around the world using the FOG as a crucial sensor for high-accuracy inertial navigation systems. The main fundamentals of optical gyros were covered in this essay, followed by discussions of the main types of optical gyros—fiber optic gyroscopes and ring laser gyroscopes—and comparisons between them. We also discussed different types of fiber optic gyros, including interferometric, resonator, and Brillouin fiber optic gyroscopes.

Keywords : mechanical gyros, ring laser gyros, interferometric fiber optic gyros, resonator fiber optic gyros

Conference Title : ICP 2023 : International Conference on Physics

Conference Location : Cairo, Egypt

Conference Dates : December 18-19, 2023