

AN OVERVIEW TO FREE SPACE OPTICS AND ITS ADVANTAGE OVER FIBER OPTICS

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ABSTRACT

Free-Space Optical communication (FSO) has become more and more interesting as an alternative to Radio Frequency (RF) communication over the last two decades. It is an emerging technology that has found application in several areas of the short and long-haul communications. The strengths of this technology's inherent are its lack of use of in-ground cable (which makes it much quicker and often cheaper to install), the fact that it operates in an unlicensed spectrum (making it easier from a political/ bureaucratic perspective to install), the fact that it can be removed and installed elsewhere (allowing recycling of equipment), and its relatively high bandwidth (up to 1 Gigabyte per second (Gb/s) and beyond). In this review paper we are going to describe modulation scheme, atmospheric effects, data security, last mile bottle neck and its future perspective.

KEYWORDS: Free Space Optics, Transmission Technology, Amplitude Modulation