Abstract

Communication has become a utility like electricity and water. With the advancement in the technology, needs of users, services, demands have been increasing day by day. So it requires high bandwidth, higher data rates, and better reliability. So for these reasons optical fibers have been used. Optical communication has advanced from long strands to wireless technology. This has resulted to use the optical communication in space. Inter-Satellite communication is one among them. Large numbers of satellites are revolving around the Earth. So a network is required which can hand-off data from one satellite to another and afterwards to the ground station. Inter-Satellite communication is one of the remarkable technologies. In this paper, inter-satellite optical wireless communication system (Is-OWC) is analyzed using different modulation techniques and formats. Various specifications such as bit error rate, Q factor, and input power are studied.

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**Index Terms**

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**Keywords**

Optical fiber, Inter-satellite, Modulation, Bandwidth, Communication