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.


19. Amphawan, Angela, Sushank Chaudhary, and Tse-Kian Neo. "Hermite-Gaussian mode


37. Sushank Chaudhary, Priyanka Chauhan, Abhishek Sharma, “High Speed 4× 2.5 Gbps-5 GHz AMI-WDM-RoF Transmission System for WLANs”, Journal of Optical Communications,


49. B. Patnaik, P.K. Sahu, “Inter-satellite optical wireless communication system design and simulation,” IET Commun. 2012, Vol 6, Iss. 16, pp. 2561-2567

50. N. Kaur, G. Soni, “Performance Analysis of inter-satellite optical wireless Communication (IsOWC) system at 980 Nm and 1550nm wavelengths,” 2014 International Conference on Contemporary Computing and Informatics (IC31)


53. A Penchala Bindushree, Nataraju A.B, Vijesh TV, Laxmiprasad A S, “Design and
Simulation of QPSK Modulator For Optic Inter Satellite Communication,” International journal of Science and Technology Research Volume 3, Issue 8, August 2014

54. P. Kaur, A. Gupta, M. Chaudhary,” Comparative analysis of Inter satellite Optical Wireless Channel for NRZ and RZ modulation formats for different levels of input power,” Second International Symposium on Computer Vision and the Internet (Vision Net’15)

Index Terms

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Keywords

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