Role of Turbulences in WDM-Polarization Interleaving Scheme based Inter-Satellite Communication System

Abstract

Inter-Satellite communication is the revolutionary technology used to transmit the signals between the satellites. This work is focused to carry out the investigation of turbulences in Inter-Satellite communication system by incorporating WDM-PI interleaving scheme. A 6 x 20 Gbps channels are transported over Inter-Satellite link having span of 1000 km to realize the total transmission of 120 Gbps. The role of transmitter pointing errors and receiving pointing errors in the OWC link is investigated and results are reported in terms of SNR, total received power and eye diagrams.

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Index Terms

Computer Science

Communications

Keywords

Inter-Satellite Communication  Transmitter Pointing Error  Receiving Pointing Error  Polarization Interleaving  WDM.