

Dynamics of Chirped RZ Modulation Format in GEPON Fiber to the Home (FTTH) Network

Authors : Anurag Sharma, Manoj Kumar, Ashima, Sooraj Parkash

Abstract : The work in this paper presents simulative comparison for different modulation formats such as NRZ, Manchester and CRZ in a 100 subscribers at 5 Gbps bit rate Gigabit Ethernet Passive Optical Network (GEPON) FTTH network. It is observed from the simulation results that the CRZ modulation format is best suited for the designed system. A link design for 1:100 splitter is used as Passive Optical Network (PON) element which creates communication between central offices to different users. The Bit Error Rate (BER) is found to be 2.8535×10^{-10} at 5 Gbit/s systems for CRZ modulation format.

Keywords : PON , FTTH, OLT, ONU, CO, GEPON

Conference Title : ICECECE 2015 : International Conference on Electrical, Computer, Electronics and Communication Engineering

Conference Location : Singapore, Singapore

Conference Dates : July 04-05, 2015