ABSTRACT

Tecnology development is followed by high transfer application service and mobility that needs hybrid architecture network. Radio Over Fiber (RoF) is one kind of hybrid network. Radio Over Fiber is designed to enlarge the fixed network data and support high transmission rate (Mbps). This kind of technology can be implemented in Wireless LAN (W-LAN) and it's call W-LAN over fiber. There are some W-LAN standard, but IEEE 802.11 is tend to use.

Optical Kerr modulator simulation for W-LAN over fiber technology application is made in this paper. BPSK and OFDM modulation that have IEEE 802.11g standarization is used in this paper. The simulation is made with dynamic and interactive condition in C++ programming. C++ programming can be used to get the relation between input and output from the system in time function (real time).

OFDM signal is used as electricity that can influence the fluctuation of lite intensity output from Kerr modulator. Nitrobenzene ($C_6H_5NO_2$) and the influenced of outside electricity is designed to produce quadratic effect with $V_{HW} = \pm 261,35 \text{Volt}$

Key words:

IEEE 802.11g, Kerr effect, Intensity