

Enrichment of wireless data transmission based on visible light communication for triple play service application

Abstract

In this paper, the performance of the LiFi-IoT based on VLC for point-to-point (P2P) topology has been investigated. LiFi-IoT offers a possibility to deploy high speed (~ 1 Gbps) wireless data for future network access optical wireless communication (UOWC). Result shows that, the LED threshold current of 16 mA corresponds to a voltage of 0.6 V. At the injection current of 30 mA, the LED has an output optical power of 18 mW for data transmission to be carried out under the optical communication environment based on Line of Sight (LoS).