

Medical healthcare M2M system using the VLC system

Absract

The RF communication has suffered from the interference and excessive latency issues. It is required a separated setup for transmission and reception of RF waves. To overcome this problem, the VLC system is a chosen technique due to high bandwidth and immunity to interference from electromagnetic sources. In this project, Optisystem Software version 15 has been chosen to study the performances of the VLC system in directed LOS. The performance results will be displayed on BER analyser and the simulation that has been done is iterating continuously in order to get the acceptable results. The result indicates that the reading of simulation of 1 user for both bit rate 155Mbps and 622Mbps shows the best result compared to 4 users. Without using any kind of OCDMA system, the number of users will reach the limitations which is not more than 4 users. The number of users influences the performance of the system and the result shows the decrement of BER reading which is lower than 10^{-9} .