Performance comparison of indoor VLC system employing SAC-OCDMA technique

ABSTRACT

Performance comparison of indoor visible light communication (VLC) system with spectral amplitude coding-optical code division multiple access (SAC-OCDMA) techniques using Khazani-Syed (KS) code is examined. Bit error rate (BER) of three different codes was investigated in terms of background optical noise interference in the system. The result shows that KS code offers a slightly better performance under the influence of ambient light noise interference with a lower code length, a few number of filters and lower BER.

Keyword: Light emitting diode; Optical wireless communication; Spectral amplitude coding-optical code division multiple access; Visible light communication