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Real-Time Demonstration of Visible Light Communication Based on Frequency-Shift Keying Employing a Smartphone as the Receiver

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Abstract : In this article, we demonstrate a visible light communication (VLC) system over 8 meters free space transmission based on a commercial LED and a receiver in connection with an audio interface of a smart phone. The signal is in FSK modulation format. The successful experimental demonstration validates the feasibility of the proposed system in future wireless communication network.

Keywords : visible light communication, smartphone communication, frequency shift keying, wireless communication
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