International J. of Engg. Research & Industrial Appls. (IJERIA),
ISSN 0975-1518, Vol. 7, No. IV (November 2014), pp. 21-36

HARDWARE IMPLEMENTATION OF PAPR REDUCTION USING LINEAR CODING TECHNIQUES FOR MIMO-OFDM SYSTEMS

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Abstract

Orthogonal Frequency Division Multiplexing (OFDM) technology is one of the most recent emerging trends in Wireless Communication. The major disadvantage of OFDM system is the high Peak-to-Average Power Ratio (PAPR) which result in the Bit Error Rate (BER) performance degradation. In this paper, a Low-Density-Parity Check (LDPC) encoder is used effectively to reduce PAPR problem. In addition the Multiple-Input Multiple-Output (MIMO) antennas technology is studied to solve reception problem. The reviewed techniques shows better reduction in PAPR as compare to other techniques, such as Cyclic coding selective mapping, filtering-clipping. And multiple signal representation .Two different linear codes have been used to examine OFDM system performance.

Keywords: Low-Density-Parity Check (LDPC), Orthogonal Frequency Division multiplexing (OFDM), peak-to-average power ratio (PAPR).