PAPR Reduction in Space Time Coded MIMOOFDM System using SCS-SLM Technique

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Abstract:
In many wireless applications, there is a need for high data rate transmission and reception. Space time coded MIMO-OFDM is the diversity method that is used for transmitting data at a very high data rate. Although the MIMO-OFDM system, experiences the PAPR problem in the present OFDM. The PAPR of the system should be avoided to reduce signal distortion and interference between carriers. The proposed STBC MIMO-OFDM system provides a solution for reducing the PAPR using the technique Selective Codeword Shift Selective mapping (SCSSLM). In the proposed system STBC MIMO-OFDM, high PAPR reduction is achieved by using the Space-Time Block Coding method and Selective Codeword Shift Selective Mapping technique. The SCS-SLM method is the enrichment of the Selective Mapping technique which reduces high PAPR, which will make the power amplifier to work in the non-linear region, which causes intermodulation between the subcarriers and distorts the signal constellation and the Bit Error Rate performance of the system also improved.

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