Abstract

The concept of Orthogonal Frequency Division Multiplexing (OFDM) has been known since 1966, but it becomes popular in during 1990s. OFDM is an attractive modulation technique for transmitting large amounts of digital data over radio waves. A major drawback of orthogonal frequency division multiplexing is the high peak-to-average power ratio of the transmitted signal. Numbers of techniques have been proposed in the literature for reducing the PAPR in OFDM systems. These techniques are broadly categorized into signal distortion and signal scrambling techniques. In this paper the well known SLM and PTS Signal Scrambling PAPR reduction techniques are compared with that of most simple Clipping and Companding signal distortion techniques.
Comparison of Signal Scrambling PAPR Reduction Techniques with Signal Distortion Techniques in OFDM

techniques.

References

- Tao Jiang, Yang Yang, and Yong-Hua Song, “Companding Technique for PAPR Reduction in OFDM Systems Based on An Exponential Function “, IEEE GLOBECOM 2005 proceedings.
Index Terms

Computer Science
Information Technology

Keywords
Orthogonal frequency division multiplexing (OFDM) peak-to-average power ratio
(PAPR) Partial transmit sequence
(PTS) Selected
Mapping(SLM)