

## **NOVEL TECHNIQUE FOR PAPR REDUCTION IN OFDM SYSTEM BASED ON SLM WITH CLIPPING SCHEME**

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### **Abstract**

The rapid growth in multimedia-based applications have triggered an insatiable thirst for high data rates and hence increased demand on OFDM-based wireless systems that can support high data rates and high mobility. As the data rates and mobility supported by the OFDM system increase, the number of subcarriers also increase, which in turn leads to high PAPR. With a description of OFDM systems, the paper describes the most commonly encountered impediment of OFDM systems, the PAPR problem and consequent impact on power amplifiers leading to nonlinear distortion. As future OFDM based systems may push the number of subcarriers up to meet the higher data rates and mobility demands, there will be also a need to mitigate the high PAPR that arises. This paper will introduce various clipping techniques for PAPR reduction. Clipping with SLM gives better PAPR reduction than only simple individual various clipping techniques.

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Keywords: OFDM, PAPR reduction techniques, FFT, clipping, SLM

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