**MIMO-OFDM PAPR REDUCTION BY RESIDUE NUMBER SYSTEM**

**ABSTRACT-**

Multi-input multi-output orthogonal frequency division multiplexing (MIMO-OFDM) system has been widely accepted a promising scheme for wireless communication systems. However it still suffers the high peak-to-average power ratio (PAPR), which is the main limitation of OFDM-based systems. In this paper, we present a residue number system (RNS) based PAPR reduction scheme in MIMO-OFDM systems. The proposed scheme makes use of the properties of RNS to greatly reduce the PAPR and the computational complexity as well. Compared with the partial transmit sequence (PTS) scheme, the RNS-based PAPR reduction scheme has not only much better PAPR reduction performance without restriction to modulation format, but also low computational complexity without side information.

Keywords-RNS, PAPR, PTS, MIMO