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(57) Abstract :
The Wireless Word today transmitting Data in the form of Text, Images and Videos over a long distance through a Digital Communication System. This Digital Communication System uses single carrier for transmitting the Data over a long distance leads to Lower Data Transmission Rate, Lower Spectral Efficiency and Lower Reliability. The Multi-Input, Multi-Output-Orthogonal Frequency Division Multiplexing (MIMO-OFDM) is the present best suitable wireless interfacing system for 4G or 5G Wireless Communications. This MIMO-OFDM uses multiple carriers, can offers higher Data Transmission Rate, Spectral Efficiency, and Reliability. The PAPR which is the ratio of peak power to the average power of a signal and significant parameter to be considering for effective utilization of MIMO-OFDM in Wireless Communications, the higher value of PAPR degrades the transmitted signal. The present invention disclosed herein is Performance Enhancement in MIMO-OFDM System using Fuzzy Inference Artificial Neural Network comprising of: Data Symbols (201); Modulation (202); Inverse FFT (203); Fuzzy Inference Artificial Neural Network (204); Encoder (205); Fading (206); Noise (207); Decoder (208); Equalization (209); Demodulation (210); and Re-Generated Data Symbols (211); used to reduce higher PAPR in MIMO-OFDM System by the use of Fuzzy Inference Artificial Neural Network. The present invention disclosed here shows the superior performance in reducing the PAPR and the performance parameters estimated are PAPR of 6.8dB, and SNR of 7.82dB.

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