Abstract

In the field of communication, for any transmission and reception of information-signal, very basic element is Antenna. It is a basic need to transmit the information as well as receive the same with multiple hops in the environment. There are several technologies like SISO, MISO, SIMO and MIMO which achieve one or more than one path. If path is more than one for same information then it will produce high efficiency and increase SNR (Signal to Noise Ratio) and reduce BER (Bit Error Rate). In which MIMO is efficient technology to reduce the overall time and also improves the efficiency by taking multiple input and output at the side of broadcast and response. But the major issue is if all the frequencies are occupied and transmit vital information then controller has to find some different way to transmit the information. OFDM removes that disadvantage by taking different phase and divide whole band-width into some narrow subcarrier and then transmit the valuable data into the air. In this paper we focus how BER decreases and SNR increases with high data rate where transmission and reception having more than one hop and frequencies are orthogonal with each other for saving the overall band-width. So MIMO-OFDM having some light in this paper named Multi Input Multi Output-Orthogonal Frequency Division Multiplexing.


**References**


**Index Terms**

Computer Science  
Signal Processing

**Keywords**

- Bit Error Rate  
- Signal to Noise Rate  
- OFDM  
- MIMO