In this paper, the Bit Error Rate (BER) performance of Fast Fourier Transform-based Orthogonal Frequency Division Multiplexing system (FFT-Based OFDM) is compared with Discrete Cosine Transform-based Orthogonal Frequency Division Multiplexing system (DCT-Based OFDM) using Binary Phase Shift Keying (BPSK) as a modulation technique over
BER Comparison of DCT-based OFDM and FFT-based OFDM using BPSK Modulation over AWGN and Multipath Rayleigh Fading environment. From the results it is clear that, the BER shift in case of DCT-Based OFDM is less as compared to FFT-Based OFDM. In addition to this we have also compare the BER performance of FFT-Based & DCT-Based OFDM over Additive White Gaussian Noise environment and Multipath Rayleigh Fading environment and it is observed that Bit Error Rate performance of FFT-Based & DCT-Based OFDM over AWGN is better than Multipath Rayleigh Fading environment.

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Index Terms

Computer Science

Signal Processing
Key words

BER  FFT  DCT  AWGN

Multipath Rayleigh Fading

OFDM

SNR

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