Abstract

With the emergence of forthcoming broadband wireless communication, the MIMO OFDM has been recognized as one of the most promising techniques to support high information rate and spectral efficiency. This paper presents MIMO OFDM system with convolution coding technique. Here, OFDM with 64 QAM modulation is combined with Orthogonal Space Time Block Coding (OSTBC) - a MIMO technique providing diversity gain with multiple transmitter and receiver antennas. Using Matlab/Simulink, the performance of MIMO OFDM is compared for different code rates in convolution coding by varying the number of transmitter and receiver antennas like 2x2, 3x3 and 4x4 and their effects on Bit Error Rate (BER) is examined.

References

- Luis Miguel Cortes-Pena, "MIMO Space-Time Block Coding (STBC): Simulations and results", Design Project: Personal and mobile communications, Georgia Tech (ECE6604), April 2009.
Performance Enhancement of MIMO OFDM

Index Terms

Computer Science

Wireless

Keywords

Mimo-ofdm  64 Qam Modulation  Ostbc  Convolution Coding  Matlab/simulink  Ber.