Abstract

Multi-Carrier Code Division Multiple Access (MC-CDMA) is one of the advanced technique which supports various multimedia services such as image, data, speech, audio and video provided by the today’s diverse wireless communication systems. In this paper, we investigate the Bit Error Rate (BER) performance of MC-CDMA system with Zero Forcing (ZF) and Minimum Mean Square Error (MMSE) equalization techniques through MATLAB simulation. The simulation has been carried out using Binary Phase Shift Keying (BPSK) and Quadrature Phase Shift Keying (QPSK) modulation techniques along with ½ rate convolution coding over frequency selective Rayleigh fading channel. Simulation results show the effects of different parameters such as the number of users, equalization techniques, modulation techniques and convolutional coding on the performance of MC-CDMA system.

References

Index Terms

Computer Science Information Sciences

Keywords

MC-CDMA, ZF, MMSE, BPSK, QPSK, Spreading codes, Convolution codes