

Performance Analysis of Acoustic Signal in OFDM Using FEC Codes

Firoz Ahmed Mansuri
firoz55@gmail.com
Saurabh Gaur

Abstract –This paper addresses the analysis of speech communication over an orthogonal frequency division multiplexing (OFDM) based system and also the impact of Forward Error Correction (FEC) codes namely Reed Solomon encoder Code and Convolution Code on the performance of OFDM wireless communication system for speech signal transmission over both AWGN and fading (AWGN, Rayleigh and Nakagami) channels in term of Bit Error Probability. The simulation has been done under different modulation techniques i.e. BPSK, QPSK and QAM with different code rates.

Keywords – AWGN, BER, BPSK, FEC, Nakagami Channel, OFDM, QAM, QPSK, Rayleigh Channel.