Abstract

With drastic increase in demand of high speed data services, achieving better performance of high speed wireless data networks becomes a challenging task because of limited available spectrum and uncertain nature of wireless communication link. Adaptive modulation based link adaptation is one of the solutions to this problem which predicts the efficient modulation technique among the available modulation techniques depending upon state of channel to
Adaptive Modulation Based Link Adaptation for High Speed Wireless Data Networks using Fuzzy Expert System

ensure high performance of data networks. In this paper, Fuzzy Expert System has been introduced which chooses efficient modulation technique among QPSK, 8 QAM, 16 QAM, 32 QAM and 64 QAM depending upon SNR, BER values and current modulation type. This system gives satisfactory results for prediction of better modulation technique among others to implement adaptive modulation based link adaptation which further enhances the performance of high speed wireless data networks by ensuring error free delivery and high spectral efficiency.

References


Index Terms

Computer Science

Networks
Keywords
Qpsk  Qam  Snr  Ber  Fuzzy Expert System