Abstract

Rake receiver can be implemented in any communication system, which has possibility of multipath components. Rake receiver can take advantage from these multipath components and combined all multipath components to achieve optimum result. The bit error rate (BER) performance of the Code Division Multiple Access (CDMA) cellular system based on IS-95 standard in the presence of an additive white Gaussian noise (AWGN) and interference has been investigated in this paper. The performance of the RAKE receiver is analysed considering of different number of fingers. The performance is evaluated under noise and interference for the CDMA forward link. Rake receiver is used in CDMA-based (Code Division Multiple Access) systems and can combine multipath components, which are time-delayed versions of the original signal transmission. Combining is done in order to improve the signal to noise ratio at the receiver and so reduced the BER. The BER has been studied for different numbers of Rake fingers.
Effect of Multiple Fingers on Receiver Performance in CDMA Forward Link

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Index Terms

Computer Science                     Communication

Keywords

BER     Rake Receiver     Multipath     CDMA     IS-95     fingers