Abstract

The cooperative communication becomes an important research topic in the field of wireless communication technique to improve the speed and reliability of communication over long distance and curved surface. The distance is increasing among transmit signal and receiver side signal, the transmitter RF power requirement goes up to maintain the required signal to noise ratio. The main aim is to minimize the bit error rate for Cooperative Communication technique with hierarchical modulation over Rayleigh fading channel. The performance of error rate can be analyzed by every of the transmission bits. The proposed to choose the optimal distance parameters for minimizing the Bit error ratio of the refinement Bit error ratio while guaranteeing the BER requirement of the base bits. The AF and DF protocols has been used during simulation. The result of the outage probability with SNR has been shown in result section to identify the effect.


**Index Terms**

Computer Science  Wireless

**Keywords**
Cooperative Communication, AF and DF, QPSK, Rayleigh channel, Outage Probability, BER, SNR, etc