عنوان مقاله:

Throughput Improvement of Cooperative System Using Adaptive Relaying & Adaptive Modulation

محل انتشار:

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خلاصه مقاله:

In this paper, adaptive modulation is implemented for a selection combining Demodulate and Forward Relay system. In this method, the source and relay select the modulation type based on the channel quality measurement, which is the output SNR, to improve the total throughput of the system. The adaptation thresholds are computed by solving an optimization problem. The model is generalized for the N-relay system and the optimization problem is modified for this case. Adaptive modulation is then employed for the N-relay DMF system. Adaptive relaying method is also proposed for adaptive modulated DMF system to achieve BER constraint, attain maximum possible throughput and reduce the complexity of hardware. Another optimization problem and several novel algorithms are generated in this paper, to perform adaptive relaying adaptive modulated DMF system. The results demonstrate that employing the proposed methods improves the total throughput of the system by keeping the BER performance at the target level.

کلمات کلیدی:

Adaptive modulation, Adaptive relaying, Cooperative communication, Demodulate and Forward Relay, Selection combining