Packet Combining and APC using Decode and Forward Relay over Wireless Networks

Abstract

Decode and Forward (DF) is a type of opportunistic relay in which the packet is relayed only when the direct transmission of information from source to the destination fails. This results in bandwidth optimization of the overall system as well as considerable saving of resources by avoiding the unnecessary relay of information when it is not required. In this paper the authors have proposed a system using DF relay. By applying proper error correction techniques at the receiver side, it has been found that a corrected copy can be recovered from any erroneous receptions. Also the system offers much higher throughput and packet error rate (PER) performance, which is evident from the mathematical and simulation analysis made in the later part of this paper.

References


Index Terms

Computer Science

Wireless

Keywords
Decode and Forward, Packet Combining, Error Correction, Aggressive Packet Combining, Majority Logic, Throughput, PER.