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

2. Yindi Jing, Hamid Jafarkhani, “Single and multiple relay selection schemes and their
of selection decode-and-forward relay networks over Nakagami-m fading channels”, IEEE
5. Yiu-Wing LEUNG, “Aggressive Packet Combining for Error Control in Wireless Networks,”
7. C T Bhunia, “Modified Aggressive Packet Combining Scheme,” Pre-print, ICTP, Italy,
8. C.T. Bhunia, “Several Modifications of Aggressive Packet Combining Scheme for
Wireless Network”, Proc. of the IEEE International Conference on Computer, Information and
Telecommunication Systems (CITS), 2012.
Conference on Communications, Computers & Devices, ICCCD-2000, 14-16 Decedember’2000,
11. Ranita Khumukcham, Abhinandan Goswami, Yang Saring, “Four new protocols for
achieving better correction capability of APC scheme”, International Conference of
Communication and Signal Processing (ICCSP-2015), Melmaruvathur, Tamil Nadu, India.
12. Ranita Khumukcham, Abhinandan Goswami, Yang Saring, “Combined APC-PC
scheme for random and time varying channels”, International Conference of Communication
and Signal Processing (ICCSP-2015), Melmaruvathur, Tamil Nadu, India.
Scheme In Multipath Routing To Achieve Higher Throughput And Error Correction Rates”,
International Journal of Electrical, Electronics and Data Communication (IJEEDC),

Index Terms

Computer Science Wireless

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