Abstract

In this paper the performance of amplify and forward relay system with Maximum Ratio Combining (MRC) and Selective Combining (SC) over Nakagami-m fading channels is studied by considering both MRC and SC schemes at the destination, we derive the cumulative density function (CDF), probability density function (PDF) and moment generating function (MGF) for the multiple relay AF network with single half duplex. In addition, we derive the exact Symbol Error Rate (SER) of M-ary phase-shift keying (M-PSK), in Nakagami-m fading environment. Simulation results are presented to show that system performance of the differential SC is comparable to the MRC at the receivers, and improves with the increase of repeaters, and different decoding methods have different effects on system performance.

References

Performance Analysis Cooperative Networks of AF over Nakagami-m Fading Channels with SC and MRC


Index Terms

Computer Science Networks
Keywords

Cooperative Networks, AF, Maximal ratio combining, Selective Combining, Nakagami -m fading channels