

Abstract

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Investigation Of Optimal and Sub-Optimal Margin Adaptation Algorithms in Nakagami-m Fading for Wireless Single and Multiuser OFDMA Systems

In this paper, we introduce the margin adaptation problem for both single and multiuser OFDM systems and illustrate its optimal solution. Due to the high complexity and long execution time of this solution, simple solutions of this problem have been studied by applying algorithms having lesser complexities and hence reduced the execution time of the allocation algorithm. These algorithms were applied in Rayleigh fading channels, we further investigate the performance of these algorithms in Nakagami-m fading channel, and simulation results are presented.