

Abstract

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A SPIHT/OFDM with Diversity Technique for Efficient Image Transmission over Fading Channels,

In this paper, we propose a combined SPIHT/OFDM coding scheme for transmission of image/video over wireless fading channels. We take a close look at the performance of MRC diversity reception of OFDM signals in multipath slowly fading Nakagami-m channels. The proposed system implements a rate control algorithm as the image coding scheme and an adaptive modulation OFDM system as the communication coding scheme. We evaluate the system over uncorrelated Nakagami-m fading channel. Simulation results for peak signal-to-noise ratio (PSNR) of the received image at different rates are presented which demonstrate the contribution of our algorithm over this challenging channel.