

Abstract

Maha A. Sharkas

Robust Wireless Image Communications Using Combined SPIHT/OFDM Technique

In this paper, we propose a combined SPIHT/OFDM coding scheme for transmission of image/video over wireless fading 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 Rayleigh 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.