Abstract

This paper deals with the efficient transmission of JPEG compressed images over Multiple Input Multiple Output (MIMO) systems using spatial multiplexing. By exploiting the spatial multiplexing using multiple antennas; data-rate, reliability, and throughput can be improved. The JPEG compressed image is divided into different quality layer and the antenna path with highest Signal to Interference Noise Ratio (SINR) is selected to transmit the different layers of image. Depending upon the SINR of various paths, the best antenna is selected to transmit the most important feature using a simple unequal power allocation scheme. The performance of multistage receivers is compared and VBLAST/ LLSE is used for simulation because it gives a slightly better performance. The proposed scheme provides significant image quality improvement and less distortion compared to known schemes.

Reference


Index Terms

MIMO Systems

Computer Science

Key words

MIMO

JPEG compression
sub-optimum receivers