

A Novel Transmit Diversity Approach for MIMO System using Different STBC Coding Schemes

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Abstract— Multiple Input, Multiple Output (MIMO) technology is a wireless technology that uses multiple transmitters and receivers to transfer more data at the same time. In order to utilize the huge potential of multiple antenna concepts, it is necessary to resort to new transmit strategies, referred to as Space-Time Codes, which, in addition to the time and spectral domain, also use the spatial domain. This paper contains the performance analysis of Bit Error Rate (BER) in MIMO system using STBC codes. We compare OSTBC scheme with different coding schemes viz; ABBA, Jafarkhani, and Tarokh in PSK modulation. To achieve full diversity, Zero Forcing (Z-F), Minimum Mean Square Error (MMSE) equalization techniques are used.

Keywords- ABBA, BER, Jafarkhani, MIMO, MMSE, PSK, Tarokh, ZF.