Diversity optimized almouti stbc wireless system using Sui model and m-ary psk scheme

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Abstract:

The wireless communication system utilizing the space diversity has an interest in modern communication system to deliver high performance to the users. The error rate is the major challenge to fight against the increasing use of mobile devices. As the obstacles and microwaves are increasing day by day the same affecting each other, the result is interfering environment with lots of noises and distortions in the signal. In this paper we have modeled a wireless communication system utilizing the Alamouti Space Time Block Codes to transmit the signal in space with variations which is integrated with the antenna diversity with the 2 transmitter and 2 receiver antennas i.e. MIMO technology to receive more power than traditional single antenna system. Such system is analysed on the SUI environment which is a modern wireless channel model given by the scientists for modern communication technology. The outcomes of the proposed system clearly show the optimized BER than existing system.

Keywords:

SUI, M-ary PSK, STBC, Antenna Diversity.