TECHNIQUES IN PERFORMANCE IMPROVEMENT OF MOBILE WIRELESS COMMUNICATION SYSTEMS – A REVIEW

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ABSTRACT

Mobile wireless communication providers are expected by their numerous subscribers to provide network that can allow higher data rates, and good voice quality. However, this may be restricted due to some technical problems such as limited availability of radio frequency spectrum, bandwidth, channel capacity, geographical areas and transmission problems caused by various factors like fading and multipath distortion. All these lead to overall system performance degradation. This has led to various studies on how improvement on the performance of wireless communication can be realized using different techniques. This paper is a review of some scholarly works on this subject. To achieve this some recent scholarly articles were accessed online and their findings were highlighted. It was observed that all the articles reviewed had results drawn only from theoretical analysis. Based on this, one of the recommendations is that theoretical analysis should be supported with data obtained from carrying out RF measurements in the field where possible.

Keywords: MIMO-OFDM, STBC, Diversity, MRC, Wireless-communication.