

# **Abstract**

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## **Enhancing MC-CDMA System using Rotated Quasi-Orthogonal STBC in Wireless Channels**

Due to the increasing demand on wireless technologies, many researches are trying to find a way to support a continually growing number of users and services which consume bandwidth. Multi-carrier with code division multiple access (MC-CDMA) is a promising candidate for mobile radio systems. On the other hand, Space Time Block Code (STBC) as a spatial diversity multi input multi output technique (MIMO) increases the bit rate without consuming additional bandwidth. The proposed model is to enhance MIMO MC-CDMA system using rotated quasi-orthogonal STBC (QOSTBC) to achieve full diversity and rate one code in case of four transmitter antennas in a quasi static Rayleigh fading channel to design an efficient system.