

**NOVEL SPACE TIME BLOCK CODE BY USING THE MULTIPATH
RAYLEIGH FADING AND RICIAN FADING CHANNEL**

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ABSTRACT

This project highlight the simulation using Cyclic Codes in order to identify the effect of two types of noise which are Multipath Rayleigh Fading and Multipath Rician Fading to a communication system .The main objective is to know which communication is better, a communication channel with Multipath Rayleigh Fading or a communication channel with Multipath Rician Fading. Modulation technique used in this simulation is Gaussian Minimum Shift Keying (GMSK).Space time diversity scheme are used to improve the bit error rate (BER) performance significantly without much increase in implementation complexity. Noise reduction and information message recovery are the important aspect designing a communication system instead of speed and accuracy in transmitting the information. The Cyclic Codes are used in the system to encoded and decoded messages. The system also provides error detection and correction using Forward Error Correction (FEC). In order to simulate the system, MATLAB R2006a is used. The model consists of transmitter, transmission channel and receiver.

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