

PERFORMANCE ANALYSIS OF SPACE FREQUENCY
DIVERSITY BY USING THE MULTIPATH RAYLEIGH
FADING AND Rician FADING CHANNEL

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by
Zulhazmi Bin Auni

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ABSTRACT

This project highlights the simulation by using the Cyclic Codes as the block coding technique to analyze the performance of Bit Error Rate (BER) of space frequency diversity by using the multipath Rayleigh Fading and multipath Rician Fading. Modulation technique used in this simulation by using MATLAB R2006a is Quaternary Phase Shift Keying (QPSK). In QPSK, that each of the four phases maps to two certain data bits. So it can be represented as the addition of two separate components called the in-phase and quadrature.

The purpose of this project is to achieve maximum diversity order in digital communication system and to develop a system that receives two of three signals transmit that have highest SNR and lowest noise at the end of the output signal. In other hand, to compared the multipath Rayleigh Fading and multipath Rician Fading in the digital communication system. The demand for a system with such capabilities initiate an intensive research for spectrally efficient higher data rate transmission, more power, better quality and better coverage.

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