Abstract

Bit error rate (BER) is the fundamental parameter to access the quality of any wireless communication. The good quality (low BER) of transmission over less SNR value is always a topic of research. However the BER can be reduced by increasing the SNR, the high value of SNR for wireless communication is limited by available transmitted power & large distance. It is observed that different modulation techniques struggles neck to neck for getting low BER, at lesser value of SNR but still with the slight change in BER the quality of transmission changes many folds. In this work we are evaluating the BER performance of cognitive radio based IEEE 802.22 WRAN with ALAMOUTI-STBC multiplexing over Rayleigh fading channel using BPSK & QPSK modulation in MATLAB environment.

References

Performance Analysis of Cognitive Radio based WRAN over Rayleigh Fading Channel with Alamouti-STBC

- G. Tsoulos, 2006, MIMO system technology for wireless communications, CRC press.
- Upena dalal "Wireless Communication System", Oxford University Press

Index Terms

Computer Science
Circuit And Systems

Keywords
WRAN    cognitive radio    BER    Alamouti-STBC