Abstract

Coding techniques is used for providing reliable information through the transmission channel to the user. In coding techniques the number of symbols in the source encoded message is increased in a controlled manner in order to facilitate two basic objectives at the receiver one is Error detection and other is Error correction. It is used to reduce the level of noise and
interferences in electronic medium. The amount of error detection and correction required and its effectiveness depends on the signal to noise ratio (SNR). In digital communication, coding techniques is a broadly used term mostly referring to the forward error correction code. The advantage of forward error correction is that a back-channel is not required, or that retransmission of data can often be avoided, at the cost of higher bandwidth requirements on average. In this paper is useful for performance evaluation of physical layer of WIMAX by using Reed-Solomon coding and convolution coding scheme, cyclic prefix and interleaving for different modulation technique with respect to bit-error rate and SNR ratio.

Reference

- Koffman, I.; Roman, V.,” Broadband wireless access solutions based on OFDM access in IEEE 802.16” Communications Magazine, IEEE, Vol.40, Iss.4, April2002.Pages:96103
- Derrick D. Boom, “Denial of Service Vulnerabilities in IEEE 802.16 Wireless Networks”, Master’s Thesis at Naval Postgraduate School Monterey, California, USA, 2004
Analysis of Coding Techniques in WiMAX

Key words
- Error detection
- Error correction code
- WIMAX
- Cyclic prefix
- SN
- Reed-Solomon coding

Index Terms
- Computer Science
- Wireless

Communications