Abstract

IEEE 802. 16 standard for Broadband Wireless Access (BWA) and its associated industry consortium, Worldwide Interoperability for Microwave Access (WiMAX) forum promise to offer high data rate over large areas to a large number of users where broadband is unavailable. The emergence of WiMAX has attracted significant interests from all the fields of wireless communications. WiMAX-MIMO systems which are created under different fading channels can be implemented to get the benefits of both WiMAX and MIMO systems. This paper analyzes different higher level modulations on WiMAX-MIMO systems with different code rates for Rayleigh channel. Spatial Diversity technique is taken into consideration for the simulation purpose. Signal-to Noise Ratio (SNR) vs Bit Error Rate (BER) analysis has been done.

References

- IEEE 802. 16 WG,"IEEE Standard for Local and Metropolitan Area Network Part
Analysis of WiMAX Physical Layer using Spatial Diversity

- IEEE 802. 16WG; IEEE standard for local and metropolitan area networks part 16: Air interface for fixed and mobile broadband wireless access systems, Amendment 2; IEEE 802. 16 Standard, December 2005.
- S. Bansal, R. Upadhayay; Performance Improvement of Wi-Max IEEE 802. 16e in Presence of Different FEC Codes; First International Conference on Computational Intelligence, Communication Systems and Networks, IEEE Computer Society, pp 226-229, 2009.
- H. Hourani; An overview of diversity techniques in wireless communication systems; IEEE JSAC, pp 1200-5, October 2004.
- J. Huang, J. Zhang, Z. Liu, J. Li and X. Li; Transmit Beamforming for MIMO-OFDM Systems with Limited Feedback; IEEE Vehicular Technology Conference, pp 1-5, 2008.

Index Terms

Computer Science

Image Processing
Keywords
Bwa Wimax Mimo Snr Ber Fec Cc Phy