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An Amend Scheme for BER Performance of WiMAX IEEE 802.16e System

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*Abstract –***WiMAX is introduced by the Institute of Electrical and Electronic Engineers (IEEE) which is standard designated 802.16d-2004 (used in fixed wireless applications) and 802.16e-2005 (mobile wireless) to provide a worldwide interoperability for microwave access. At present, telecommunication industries are highly concerned with the wireless transmission of data which can use various transmission modes, from point- to-multipoint links. It contains full mobile internet access. Various applications have already been applied so far using WiMAX, as alternative to 3G mobile systems in developing countries. The paper built a simulation model based on 802.16e-2005 OFDM-PHY baseband and demonstrated in different simulation scenarios with different modulation techniques; BPSK, QPSK and QAM to find out the best performance of physical layer for WiMAX Mobile. All the necessary conditions are implemented in the simulation according to the 802.16e-2005 OFDM-PHY specification. The performance is recorded based on BER, and SNR output through MATLAB Simulation.**

*Keywords –***AWGN, BER, OFDM, SNR and WiMAX.**