

MSEE Scholarly Paper Presentation

WiMAX and its physical layer simulation

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Abstract

WiMAX is an emerging wireless communication system that aims to provide broadband access with large-scale coverage. WiMAX defines a Wireless Metropolitan Area Network, a kind of a large hot-spot that provides broadband wireless connectivity to fixed, portable, and nomadic users. It supports non-line-of sight (NLOS) transmission with high data rate and high mobility.

This scholarly paper focuses on WiMAX and its physical layer simulation. First, it gives basic introduction to WiMAX including its standards and relationship with other technologies. Second, it presents a model for simulating WiMAX physical layer using Simulink in Matlab. Finally, performance of the system implementation with different SNR is tested and BER versus SNR curves are presented.