

Simulation and evaluation of radio transmission in WiMAX using OFDM and QAM modulation methods

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Abstract: This topic focuses on simulating and evaluating the quality of radio transmission in WiMAX systems by applying OFDM (Orthogonal Frequency Division Multiplexing) and QAM (Quadrature Amplitude Modulation) modulation methods. The context of the topic stems from the necessity of WiMAX in extensive mobile networks. The main objective is to build a simulation system to evaluate transmission performance, while also verifying the modulation methods in a real-world environment. The research method combines theory with experimentation to provide deep insights into the application of OFDM and QAM in WiMAX. The expected results are highly applicable, contributing to the improvement of mobile transmission technology.

Keywords: WiMAX, OFDM, QAM, Simulation, Evaluation