

ABSTRACT

High-speed wireless communication is highly needed by most people. There are a lot of user that needed high-speed wireless connection. WiMAX standard could provide that demand.

Turbo Code, found on 1994, is the nearest coding technique that can near Shannon channel capacity. This coding technique expected to yield low error probability with small power.

This final project will examine how far turbo code can fulfill expectation of Shannon capacity bound.

Dalam tugas akhir ini akan diteliti sejauh mana turbo code yang diterapkan pada standar WiMAX dapat memenuhi ekspektasi yang diharapkan agar mencapai kapasitas kanal Shannon.

From simulation result, we can conclude that Turbo Code usage as FEC on WiMAX could give coding gain up to more than 10 dB on BER 10^{-1} .