ABSTRACT

Broadband service for now is important. Wireless technology is an alternative in broadband service. Multichannel Multipoint Distribution Service (MMDS) is a wireless technology that provide broadband service that base to point to multipoint technology with operation frequency 2.5 GHz to 2.7 GHz.

MMDS is system that adding wireless technology and cable technology. With using cable technology, performance is very high, but influenced with distance. Whereas, at radio side, the performance not as high as using cable, but service distance can more longer. For increasing the performance of MMDS system at wireless, channel coding was used. The code that used is Reed Solomon at out side and convolutional. code at inside. The Reed Solomon code used for settle burst error, whereas convolutional code used for random error.

This final exam will analysed the influence of BER to SNR with using Reed Solomon code and Convolutional code at MMDS system at AWGN channel.

From simulation result, be found performance raising from MMDS system with using Reed Solomon code and Convolutional code with using raise of constraint length. At simulation result, be found the reduction of SNR power value that needed as 0.73 dB and 1.39 dB with using QPSK modulation. Whereas, the value that be found with using 16 QAM modulation are 0.64 dB and 1.26 dB.