ABSTRACT

In the communication system modulation and demodulation process is very influential on the process of transmitting the signal, so that the signal is transmitted to the destination information. Modulation is the process of laying down the information signal to the carrier signal, whereas demodulation is the process of converting the signal to return to the original form of information after it has been modulated. At this time will be made simulator that simulate analog signal, therefore made an AM signal for learning of analog signal at course of communication system.

In this final project focused on making a simulator for learning modulation and demodulation of AM by using MATLAB (Matrix Laboratory). MATLAB is software that can be used in programming process by using signal generation parameter. Blocks are simulated from the delivery stage to the receiver's side detection via the AWGN (Additive White Gaussian Noise) channel and the Rayleigh channel.

In this simulator that has obtained results in accordance with the theory and can help and facilitate the learning process of daily communication system course modulation amplitude materials.

Key Word**:** *MATLAB, AM, AWGN, Rayleigh, Modulation, Demodulation*