

ABSTRACT

In a communication transmission system modulation and demodulation process greatly affect the signal transmission process, in order to signal to the destination information. Modulation is laying event information signal to the carrier signal, demodulation is the process of converting the signal to return to normal after modulated. One example is the analog modulation AM. At the moment there is no a simulator for learning analog signals, therefore made an AM signal simulation for learning analog signal on subjects siskom.

At the end of this project will be made a simulastion using LabVIEW (Laboratory Virtual Engineering Workbench). LabVIEW a programming software that will perform simulasing using signal-forming parameters that are in LabVIEW to prove the resulting output is equal to enter it, using analog-based modulation, especially with methods of AM (Amplitude Modulation).

Based on the results of tests already carried out , it showed that the simulator modulation and demodulation AM AM DSB DSB SC and FC is able to perform simulations and were also able to display the form information signal , noise AWGN, the output signal in the time domain or frequency domain . Then , the test with the addition of noise AWGN produce a defective signal. Tests conducted modulation index to each series of DSB AM SC and AM DSB FC get the results that DSB AM SC only has one type of modulation index , $m = 1$ while AM DSB FC have three types of modulation index is $m > 1$, $m = 1$, $m < 1$.

Keyword : LabVIEW , AMDSB FC, AM DSB SC, modulation , demodulation, index modulation