

## ***ABSTRACT***

The development of communication systems, especially in the field of digital modulation and demodulation. Modulation is the process of changing a periodic waveform that makes a signal capable of carrying information. With the modulation process, some information (typically low-frequency) can be inserted into a carrier wave, usually in the form of high-frequency sine wave. Modulation technique consists of several kinds of modulation, the analog modulation and digital modulation. In digital modulation, signal information is transmitted in digital form by means of laying on a carrier in the form of a sinusoidal wave. There are several types of digital modulation techniques such as amplitude shift keying (ASK), frequency shift keying (FSK), and phase shift keying (PSK). Because lack of understanding of the process of modulation and demodulation BPSK and QPSK, then created a simulator modulation and demodulation BPSK and QPSK

In this final project simulator modulation and demodulation digitally created is BPSK and QPSK using LabVIEW software. The execution of this simulation aims to describe how the characteristics of the waveform of each block modulator and demodulator block. So that the students can truly understand and appreciate clear picture of the work process of sending and receiving digital modulation and demodulation techniques BPSK and QPSK

This study makes the program on each block of modulator and demodulator on each technique BPSK modulation and digital demodulation and QPSK. The accuracy of testing to the extent of the program on each block. The test is successful when the binary input according to the binary output affected by noise AWGN and when changing the shape of the signal at AWGN deviation of 0.01 to 1.

**Keywords:** Modulation, Demodulation, LabVIEW, BPSK, QPSK