
ABSTRACT

As time, the digital transmission of choice in telecommunications processes. Modulation and demodulation is an important aspect in telecommunications and is a key concept in the transmission of digital signaling. Modulation is the process of laying on the frequency of the information signal with the frequency of the carrier signal. Demodulation is the process of reshaping a modulation signal to be like the original. In the telecommunications field it is necessary to understand and know about digital modulation process. So, we need a software to facilitate the understanding of learning in learning processes in particular digital modulation and demodulation of ASK (Amplitude Shift Keying) and FSK (Frequency Shift Keying) which is often used for digital transmission.

At the end of this project created a digital signal modulation simulator ASK and FSK use the software LabVIEW (Laboratory Virtual Instrumentation Engineering Workbench). This simulator can display the visualization of work processes ASK and FSK modulation and describe the influence of AWGN channel (Additive White Gaussian Noise) to BER (Bit Error Rate).

Based on the results of tests performed on the simulator ASK and FSK modulation of this it can be concluded that the application is capable of performing a simulation by displaying six types of output, the image signal carrier is used, the signal noise, modulated signals both in the frequency domain or in the time domain, the signal information transmitted, constellation charts for ASK modulation and BER calculation results.

Keywords: modulation, labVIEW, BER, ASK and FSK