ABSTRACT

The development of information technology in the current era is growing very rapidly because it has been changing throughout the analog information into digital information, and changing analog system to a digital system the entire technology greatly facilitates users to apply such technology because digital systems have many advantages compared to analog systems. However, with increasingly sophisticated information systems and technology changes, there will be a canal that passed by a communication system. AWGN and Rayleigh Channel Canal is a type of channel that will affect the process of modulation. As long as there is no simulator that can facilitate learning on courses system communication system thus causing difficulties to be able to learn a lot about the science that is in communication system especially on Quadrature Ampitude Modulation.

In this final task used matlab software as an adjunctive to see as large an influence channel AWGN channel, Rayleigh and chances of error in the modulation of m-ary QAM. m-ary QAM modulation form is a combination of FSK and ASK with a constellation of the signal amplitude and fits phasanya, m-ary QAM modulation scheme is also a that brings data by changing the amplitude of two carrier waves

In this simulator, it has been conducted a test result which states that this simulator is able to improve the understandment about modulation with percentage equals to 97%, and also works as its function with percentage equals to 54,80%.

Keywords: Quadrature Amplitude Modulation, AWGN Channel, Rayleigh Channel, Bit Error Rate.