

## **ABSTRACT**

Recently, there are so many communication system construction to build new installation network. In this case, its not efficient and wasting time. Beside, in need of a telecommunication technology that can provide access rashness and can reach rural area. Power line commnucation is a solution to solve this problems. Power line communication is a data transmission system that used power line channel as a carrier frequency medium.

PLC as a technology that used power line channel face few problems. The fact that power line channel is a place where most of the electricity equipment being operated makes the power line channel has high noise level. These noise will affect the quality of voice and data transmission, so we need a modulation scheme that can solve this problem.

To increase the system performance that transmit data to a telecommunication channel,several coding technique has commonly used such as block code and convolucional code. This final task is simulating the use of convolucional code and OFDM on PLC.

Keywords : PLC, viterbi, OFDM.