ABSTRACT

Automatic Meter Reading (AMR) or Automatic Digital kWh Meter has a function to write amount of power that is used by PT. PLN subscribers. The advantages of AMR System are power writing is done automatically by the device and transmite it to Central writing of PT. PLN for counting the bill oh the electricity.

This thesis analized about the effect of AMR echo on Powerline communication (PLC). The purpose is to make a simulation about the characteristics of echo and its affect against the PLC System based on B-FSK. Also comparing it with different method of error correction due to charge on the network.

Coding is an important part in digital system that can be used to control error. A part of coding that has a function to control error is Chanal Coding. Convolution Coding is one of various coding that implemented in this thesis.

From the result of simulation and analysis whice is using FEC Block code and Convolution code, it is gained that the Convolution code is more efficient (about 3.5 dB) than Block code for BER 10^{-3} , otherwise the AMR System based on PLC can be more reliable.

Key word : AMR, PLC, *Convolutional code,* OFDM. *Multipath* and *impulse noise*.