ABSTRACT

Generally making system digits kiloWatt per hours (kWh) meters Perusahaan Listrik Negara (PLN) *occurred nowadays done manually. Human factor having eyesight was less could raises mistakes recording digits kWh meters, this system also requires compilation sufficient time long. As alternatives systems data recording digits kWh, can done with acquisitions digital camera herenafter will processed automatically. From here can obtained data form of number kWh meters. To simply searches within a darabase, data preferably within forms text or writng*

With the image processing technology, the data is an image containing the image of character can take the information and converted into aform of writing or text. This image processing using contrasting colors on the kWh meters. kWh meters which consist of black (background) and white (numbers). Result of image processing is realized in the form of binary codes, and these codes will be input ART2 neural network model that serves to make decisions with the aim to recognize the text.

In contrast to the image of a fingerprint or a signature that has a very unique pattern, the pattern of the image numbers, has the equation between the image patterns of characters with each other. As the image number of pixels on the same columns and rows. The test results that the maximum occurs in the value of vigilance parameter (ρ) between 0.987-0.9885, Learning Rate (α) is 0.4,0,8-1, and iteration 6-10, to support the ART2 neural network by using the histogram feature extraction of four diagrams, time required of 5.5 seconds.FAR 16.27% and FRR 75.4.

Keyword: image processing; neural network ART2