ABSTRACT

Implementation of handwritten character recognition technology is very useful for example for forensic analysis purposes or proving the authenticity of someone's handwriting. Today, many documents involve the handwriting of people concerned. This is due to many crimes committed against a person's signature, such as falsification of signatures.

By involving handwriting, written directly by a person, it will be very difficult to forge the handwriting is because each person's handwriting must have the characteristics of each, either the types of writings or indentations formed by hand to carve up the post according atmosphere author's heart. In general, handwriting character recognition system using a bitmap pixel is not directly but it worked on the domain features. Characters represented into more compact shape features are then used for recognition, thereby saving computation.

In this research carried letters of introduction processes that make handwriting (handwriting recognition) using 2D Gabor Wavelet and the process of character recognition using artificial neural networks (ANN) Backpropagation method that can distinguish one's writing with the writing of others. Input image which will be input in the form of images must be in *.jpg*. Handwriting images are filtered with 2D Gabor Wavelet then it sums by vertically getting feature vectors. Feature vectors generated become input for the ANN.

The result by the system is ability to recognize handwriting with a level of accuracy of 77.72%, which was created by combining the method of 2D Gabor Wavelet and ANN Backpropagation.

Keywords: handwriting, feature extraction, Gabor Wavelet, Backpropagation