ABSTRACT

Music has a wide range of genres and some examples are Pop, Rock, and Dance. Man in distinguishing the genre typically see with the characteristics of the music and the type of instrument being played. He sometimes easy to distinguish a genre of music, but a system or machine is sometimes difficult to distinguish the genre of a music file. Digital Signal Processing in the rapidly evolving audio signal to produce a system that works automatically. So we need a development of methods and algorithms that can accurately classify genre. Several previous studies have used Artificial Neural Networks, Support Vector Machine, Hidden Markov Models, and Continuous Density Hidden Markov Model as a method of classification.

In previous studies, use Neural Network Backpropagation with an accuracy of 67%. Furthermore, genetic algorithm is used in the final work iniuntuk genre classification that has good quality in classification accuracy by using a characteristic frequency content and classification using neural networks backpropagation.

After testing the system that has been designed. Parameters that produces maximum accuracy ie the number of hidden layer 1, the number of neurons of each layer 20, the value of learning rate 0.05 activation function tansig for the hidden layer, the activation function purelin for the output layer, learning algorithm trainrp with an accuracy of 77.77% of the training data 150 training data and 150 testing data. Parameter Genetic Algorithms improve accuracy becomes 85.55% by the parameter generation number 100, the sheer number of people 50, 0.6 crossover opportunities, and opportunities permutation 0:01.

Keywords : Music, Genre, backpropagation Neural Networks, Genetic Algorithms.