

ABSTRACT

Increasingly rapid technological developments provide many benefits to society. One of the advantages of providing ease in meeting the needs, as well as in the hobby community, especially for lovers of birds chirping. Ease required by the community is a system that can detect the sound of birds chirping, so they are easy to determine the chirping sounds good in every race of birds chirping. It is necessary to meet the system can classify the sound of birds chirping.

In this thesis has created a system that can classify bird species based on the chirping sound. System is made to apply Wavelet Packet Decomposition as forming the feature vector and the Artificial Neural Network (ANN) Self Organizing Map (SOM) to analyze the sound of birds chirping of birds in each. It can be obtained by comparing the feature derived from each of the sound of birds chirping. As for the feature used is the maximum energy.

A good system must have an appropriate level of accuracy for the user, so it will not harm the fault information provided by the system. This final system has been built with the capability of producing an accuracy of 83,13%. Accuracy is obtained from the changes in the level of decomposition, and changes in neural network parameters.

Keywords: Bird Song, Wavelet Packet Decomposition, ANN, SOM