ABSTRACT

Learning Balinese traditional music is usually done based on feelings of the listener and there is no specific literature to study the traditional music of Bali. For people who heard the sound of Balinese gamelan music for the first time will feel difficult in distinguishing the types of musical instruments being played. It will certainly impact on the learning process for beginners Balinese gamelan.

So on this final project, an application system is made to identify each tone which being played on the traditional music of Bali. The system was implemented to form Wavelet Packet Transform feature vector and artificial neural networks (ANN) Back Propagation to analyze each type of tone at the Bali traditional music instrument. The results of the system is expected to assist in the learning process of traditional Balinese musical instrument for beginners.

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 88.0503%. Accuracy is obtained from the threshold value changes, changes in the level of decomposition, and changes in neural network parameters.

Keywords: Traditional Balinese music, Wavelet Packet Transform, Backpropagation Neural Networks