

ABSTRACT

Along with the technological progress and the development very rapidly, people wants performing all daily activities in easy way. As in the automotive field, motorcycle mechanic in the small workshops wants the technology advanced enough to support all their activities. They need an RPM meter to facilitate their work. Therefore an easy way to set the RPM of motorcycle by design a system that can determine the value of the RPM of a motorcycle. Thus expected it gives a simple way to set the RPM just only record the sound of the motorcycle.

In this final project conducted a simulation system capable of classifying the value of RPM motorcycle using the FFT. If appropriate it will be a practical way to find out how big the RPM of the motorcycle without having to use media such as cable digital RPM meter available today. In this final project the method used Backpropagation Neural Network to recognize or classify sound patterns.

The simulation results of this system is able to classify the value of RPM with an accuracy of 95.71% rate, so the system is quite good in terms of precision in adjusting RPM motorcycle using sound.

Keywords : RPM classification system, RPM, FFT, backpropagation, motorcycle