ABSTRACT

Sound signal processing is felt to be very helpful in the development of the music industry and can be simplified in recognizing and testing the accuracy of audio and music as desired. In previous research has designed the analysis and simulation of the song title classification based on humans humming. However, the system still have the limitations to add the data of the song to the database where's the data of the song is stored in the database in the form of verse and reff in a manuall way. In this way, it will be take a long time if desired addition data of the song within large ammount into the database. In this final project will be designed a simulation to determined the reff/chorus part of the next song with hearing requirement and known the first part of the reff/chorus of the song. By using development of the audio processing, the system that already design with using the first part of the reff/chorus of the song as an input and then extraction of features between the Discrete Cosine Transform (DCT) and Modified Discrete Cosine Transform (MDCT) method that used as a comparison from the result of the test. In this research, the scenario test that have been used to determine the good frame to use and then calculated how long the computation time from the research of reff/chorus from the song in a digital way. The outline result from the DCT methode research for frame 200ms get 62,7% accuracy with computation time 25,6 second, frame 500ms get 73,3% accuracy with computation time 21,2 second, frame 800ms get 86,7% accuracy with computation time 15,5 second, frame 1000ms get 97,3% accuracy with computation time 10,5 second, frame 1600ms get 46,7% accuracy with computation time 6,4 second, and frame 2000ms get 37,3% accuracy with computation time 4,7 second. For MDCT methode the result for frame 200ms get 61,3% accuracy with computation time 26,2 second, frame 800ms get 61,3% accuracy with computation time 16,4 second, frame 1000ms get 88% accuracy with computation 11,1 second, frame 1600ms get 40% accuracy with computation time 7,5 second, and frame 2000ms get 23,9% accuracy with computation time 4,7 second.

Keywords: *Song, Reff, Discrete Cosine Transform (DCT), and Modified Discrete Cosine Transform (MDCT).*