

ABSTRACT

Analysis and simulation of song titles based on human humming. It has been done in previous studies, the weaknesses in these studies is that the manual method is still used in the addition of the database, namely the Chorus / Refrain component, by manually sorting all the components in getting the Chorus / Refrain itself which takes more time in the process. Therefore, in this final project, a system is designed to automatically add a database that has a requirement that the position of the first Chorus / Refrain should be known in the song section, using the DWT and DCT system is expected to produce high accuracy with a short computation time.

The system will be designed using input in the form of a complete song and then determined at the first Chorus / Refrain, and then feature extraction will be carried out using the Discrete Cosine Transform (DCT) method, in which the DCT usage itself is chosen because it can sort more detail in a signal smaller frequency, so that a complete signal will be obtained. The use of Discrete Wavelet Transform (DWT) is used to extract the embedded Watermark on a signal, so that a genuine signal is obtained in the process, then matching the pattern similarity in the first Chorus / Refrain song section using the automatic correlation method to obtain the Chrous part / Refrain the second and third are appropriate. The use of the Discrete Cosine Transform (DCT) method with Discrete Wavelet Transform (DWT) is a combination of methods that can be said to be the most successful in the last twenty years.

This study, serves to create an application that is able to sort Chorus / Refrain songs in seconds and with a high degree of accuracy. The results of the outline research on Pop songs have a computing time of duration (10.81) seconds, EDM duration (9, 26) seconds Funk duration (11.48) seconds, Rock duration (11.73) seconds, Hip-Hop duration (11.70) seconds, with accuracy on 1000ms frequency that is Pop can detect 100% true song, 100% EDM , 90% Funk, 100% Rock and 100% on Hip-Hop.

Keywords: Chorus / Refrain, Discrete Cosine Transform (DCT), Discrete Wavelet Transform (DWT), Song Separation