ABSTRACT

Voice Recognation signals to be especially helpful in the development of digital music. The voice signals processing can facilitate in identifying and testing the accuracy of the desired music. It can push for the creation of the sound signal processing variations that can have a good function in testing the accuracy of tone in a song. In this study will be made a test simulation accuracy with a humming song humans, to facilitate the search the desired song.

In this research, designed a simulation title track classification using Mel Frequency cepstral feature extraction coëficient (MFCC) and using the classification DTW (Dynamic Time Warping). In the classification process and the data frame length song database that has a structure that is more prominent instrument greatly affects suitability humming tone to the tune of accuracy obtained sehinnga unsatisfactory and sought training data that includes vocals. Thus the suitability of songs can be improved.

After testing the system designed . Results of testing between humming and songs instruments with a value parameter frame 1000ms , 13 MFCC coefficients and value filterbank 24 , obtained an accuracy of 76.54 % . The parameters that produce the maximum value is the value of framing 1000 ms , the value of coefficient MFCC used 13 and the value filterbank used is 24 , with training data 50 titles vocal tracks consisting of 100 files with separation of verse and chorus , test data 28 title humming songs consists of 56 files verse and chorus , so the system that has been tested obtained accuracy of 82.857 % . The computing time training of this system with 100 files. * Wav and 1000 ms frame is 6 minutes and 30 seconds is quite fast .

Keywords : Voice recognition , voice humming , MFCC , DTW , the title song .