

ABSTRACT

Music is a need for every human being. Music is not only a pleasure matter of listening to the music itself, but it has become a vast industries and business. Music is not limited to gender, age, race or ethnicity. It permeates all of those dimensions. Development of music around the world is growing rapidly as the emergence of more actors to write (songwriter) and to compose (composer) music resulting the increasing number of song and music's types, according to culture, taste, genre, creativity, technology and of course, markets. Nowadays, we can enjoy and listen the music anytime and anywhere. Like in the shopping malls, book stores, cafés, restaurants and other public places. Sometimes when someone is enjoying a song that she/he likes in a public place, she/he does not know and want to know what the title of the song.

To provide a solution to the problem, in this Final Project has built a system that can detect the title of a song. Input of the system is melodies which played on guitar instrument. The audio files saved in WAV format with a duration of 20-30 seconds. In the detection process, the system uses Mel Frequency Cepstral Coefficient feature extraction and Support Vector Machine classification method. The output of the system will be the song title from the given input.

From the test results, the system generates the best performance with the highest accuracy of 94%. This shows that the use of Mel Frequency Cepstral Coefficient as feature extraction and Support Vector Machine classification methods in the detection of the title song of melodic guitar is quite good.

Keywords: Detection, Guitar, Tune, Mel Frequency Cepstral Coefficient, Support Vector Machine.