

## **ABSTRACT**

Music is series of tone which can be enjoyed by all people. Along the development era, many music listeners want to learn how to play music instruments, either single tones or chords. But in studying it, a lot of beginners confused in determining chords in a song. Therefore, the application is necessary to helps in learn it.

In this Final Project, designed a system that can determining right chords in the songs. It is done by detecting single tone which is entered and match the result of detection with database to determine appropriate chord. This system is using Harmonic-FFT and JST Backpropagation methods. Harmonic-FFT is use to extract feature (audio file) dan JST Backpropagation use to identify or classify the input.

Average of the accuracy percentage of the test results obtained in this system is 61.49%. With most good percentage of 78.57% was obtained in the song Aura with distance 4. While the results of the MOS, the best value was 3.50 in the song Clementine with distance 3.

**Keywords : Real-Time , Chord, Harmonic-FFT, JST Backpropagation**