ABSTRACT

Every singer or every person who sang required to have the ability to recognize tone and accurately sync with the music . But not everyone has the ability to do that, so the song become false and not synchronized with the music. To prevent that, we need an aplication to assist people to recognize the tone, because not everyone can get to know a tone. In the made of application, we need to choose operating system that will be used. Android operating system is one of the operating system that is halfway grown adult in society. There are advantages of this operating system among other operating systems can be modified to suit our own desires, many computer applications are already available for Android smartphones.

Thisapplicationusesthe human voiceas asignalinputand then the signal input will be filterd and windowed. After that, the signal input will beonthe extractionof characteristics withthe FFTmethod. The output form ofFFT method would be coefficientsdatapoints of signal input whichwill then be comparedwith the databaseusing Euclidien Distance.

This application can identificatewhatthe toneis usedbythe human voiceinreal timetwith 43% accuracy whenusing theFFTwithaN = 64withthresholdandthennormalize. For nonreal-time this applications has a73% accuracy ratewiththe settingsusingFFT N =64and thenusingthresholdandnormalization.