ABSTRACT

One of the most popular musical instrument in the world is the guitar. The guitar is a musical instrument that is relatively easy to play. But there are problems for the beginner who wants to play the guitar, the strings on the guitar each have certain basic tone and if appropriate, it will sound off-key. Of course, things like this would make it difficult for novices to customize each of the strings on the guitar as just rely on hearing ability.

One solution is to use an electronic guitar tuner, but this tool is relatively expensive and less flexible to carry anywhere. In this final task of designing and implementing a guitar tuner in the form of iOS applications using the Fast Fourier Transform.

The result of the application performance is obtained by testing the accuracy of the reference frequency, electric guitar tuner, and similar applications on iOS devices. The best results get 99% accuracy over the entire string when compared to the reference frequency. This indicates that these applications can help the beginner guitar players and this system can compete favorably with the actual electric tuner or similar applications.

Keywords: *Guitar Tuner, FFT, Tones, iOS*