

## **ABSTRACT**

Signal Processing works are tremendously used in Musical industry for Digital Audio Production where recording, mixing and editing and many Audio FX are implemented so that the resultant audio file obtained is of a high quality with improved timbre (tonal accuracy) and other sound parameters.

An audio file of an instrumental format (which is of interest, not the commercial mp3 songs) consists melodies, harmonies, tunes of an instrument been played along with vocals (however vocal is not considered as of now). For a person who want to learn how a song (melody or tune) can be played in his instrument, he must know what exact notes to be played, according music knowledge.

A musician who has a good knowledge on frequencies of every note that is being played, can reproduce by trial and error methods to start from the Root note, then finding chords and scale then the exact tune. But for a beginner who wants to play the exact music might be a tough task.

### **PROJECT IDEA :**

Now, a software in which the required audio file is given , working out the processing steps inside it generates the frequencies ( pitch ) , next chords, later for scale then itself shows the notes with respect to time.

Adding audio effects to this project makes it look great for a musician to perform advanced signal processing steps. Channel separation, tempo changing etc., can be included in the later versions.