**MINI PROJECT – I**

**(2018-19)**

# Tensorflow-Neural Network

(Music Instrument Identification)

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**SYNOPSIS**



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**About the Project:**

This is a music instrument classifier which processes the audio and based on that, outputs the instrument that it was able to identify. This model deals with spectrogram of the audio. As prior information, we only assume to know the instrument types that are present in the mixture and, using this information, we generate the training data . This model may feature Support vector machines, CNN or RNN, based on which approach gives more accuracy will be used.

**Motivation:**

Someone said “I wish I knew about all the instruments used in this song”, that was the source of Idea. Having searched on internet, there are no appropriate tools available for this, so this is going to be challenging which itself is source of motivation.

**Future Prospects:**

Music industry is rapidly increasing with the increased use of computers. In future AI will be powering everything including the music industries.

This model can be used by music producers/composers, they can tune it according to their use.

**Requirements:**

1. **Hardware:**

* Cloud or
* A decent computer with GPU capabilities

1. **Software:**

* Python environment