Presentation on
"EMOTIONS BASED MUSIC PLAYER"

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INTRODUCTION

Background

Music plays a very important role in enhancing an individual‘s life as it is an important medium of entertainment for music lover world

Objectives

- Project Emo player (an emotion based music player) is a novel approach that helps the user to automatically play songs based on the emotions of the user.
- It recognizes the facial emotions of the user and plays the songs according to their emotion.
- The emotions are recognized using a machine learning method Support Vector Machine (SVM)algorithm.
- The human face is an important organ of an individual‘s body and it especially plays an important role in extraction of an individual‘s behaviours and emotional state.
- The webcam captures the image of the user.It then extract the facial features of the user from the captured image. Facial expression categorized e.g. smiling and not smiling.
- According to the emotion, the music will be played from the predefined directories.

PROBLEM STATMENT

Using traditional music players, a user had to manually browse through his playlist and select songs that would soothe his mood and emotional experience. In today`s world, with ever increasing advancements in the field of multimedia and technology, various music players have been developed with features like fast forward, reverse, variable playback speed (seek & time compression),local playback, streaming playback with multicast streams and including volume modulation, genre classification etc.

SCOPE

Facial expressions are a great indicator of the state of a mind for a person. Indeed the most natural way to express emotions is through facial expressions. Humans tend to link the music they listen to, to the emotion they are feeling. The song playlists though are, at times too large to sort out automatically. It would be helpful if the music player was “smart enough” to sort out the music based on the current state of emotion the person is feeling

Why Emotion based music player?

- It aims to provide user-preferred music with emotion awareness. In existing system user want to manually select the songs, randomly played songs may not match to the mood of the user, user has to classify the songs into various emotions and then for playing the songs user has to manually select a particular emotion. These difficulties can be avoided by using Emo Player (Emotion based music player).

APPLICATION

- Automatically play song based on the emotion of the user.
- Act as a pluigin for website.
- Recommending for Youtube.
- Smart TV.
- Personal Assistant

ADVANTAGES

- Users don’t want to select song manually.
- No need of playlist.
- Users don’t want to classify the songs based on the emotions.

DISADVANTAGES

- Detector is most effective only on frontal images of faces.
- Sensitive to lighting conditions.
- We might get multiple detections of the same face, due to overlapping sub-windows.

Hardware Requirements

The most common set of requirements defined by any operating system or software application is the physical computer resources, also known as hardware.

The hardware requirements required for this project are:

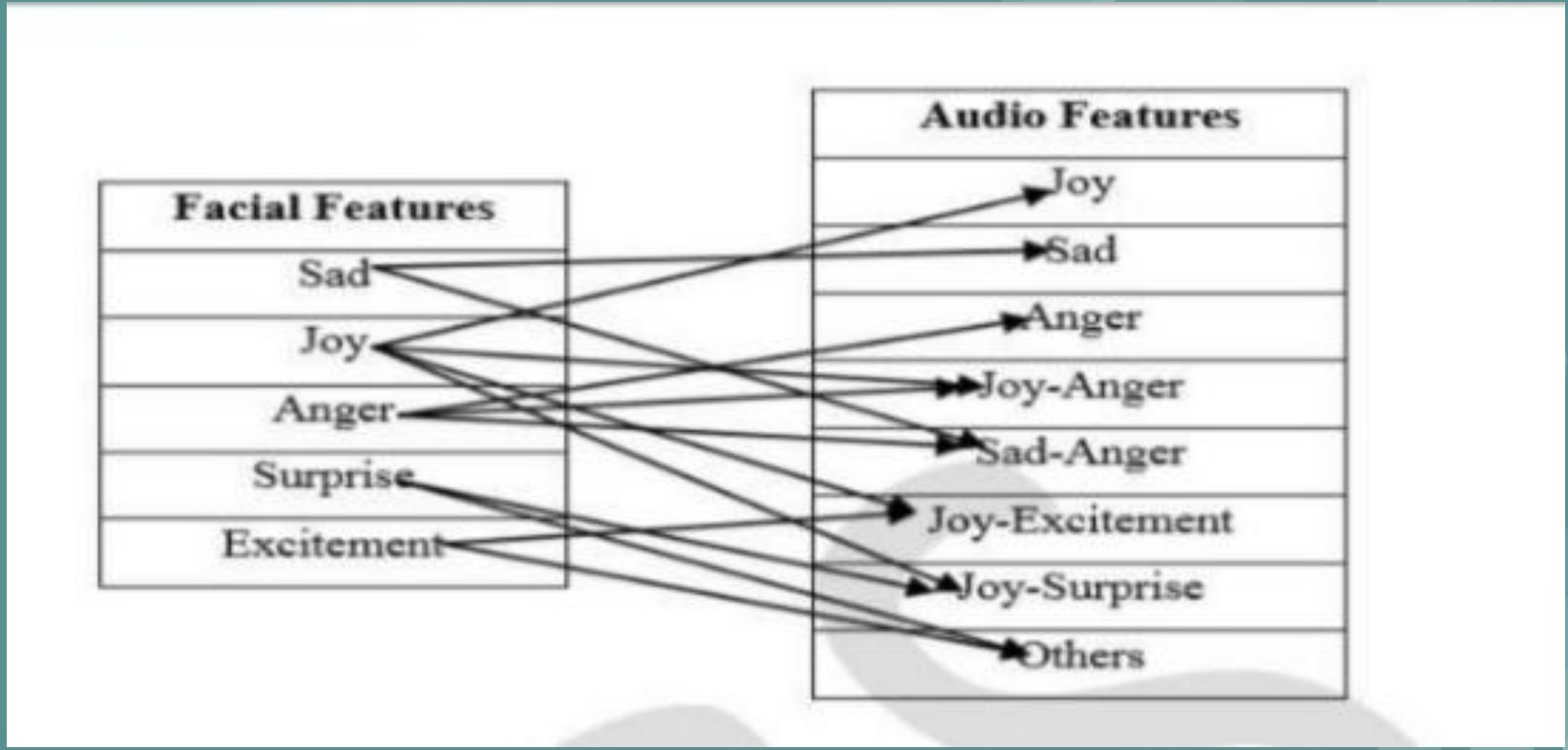
- Intel i3
- 4GB RAM
- Webcam
- Speaker

Software Requirements

Software Requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application. These requirements or pre-requisites are generally not included in the software installation package and need to be installed separately before the software is installed.
The software requirements that are required for this project are:

- Python 2.7
- Open CV 3.1

Mapping of facial and Audio features



BLOCK DIAGRAM OF PROPOSED SYSTEM

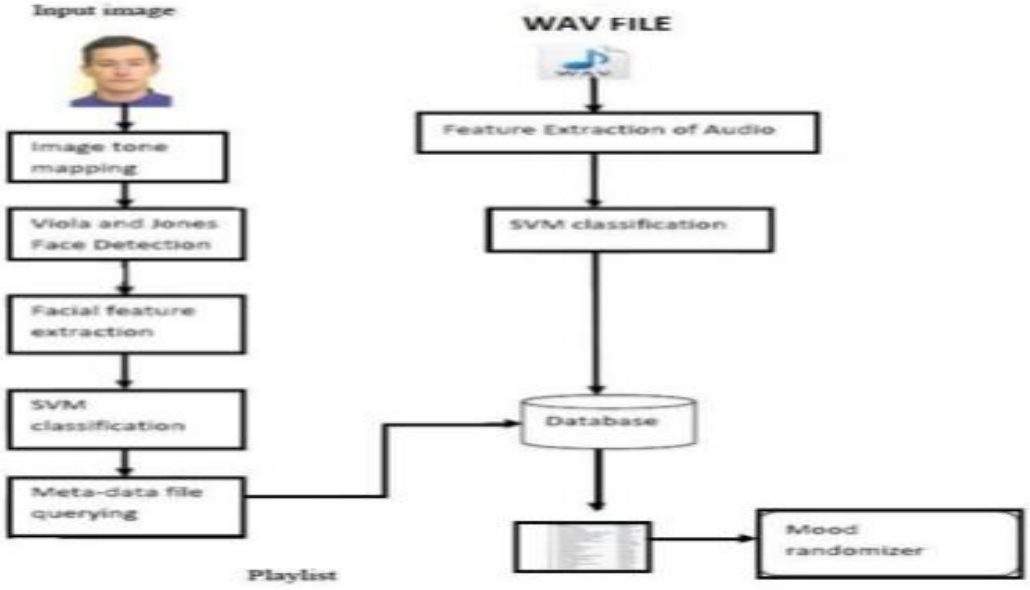


Fig 1 Block Diagram of Proposed Algorithm

CONCLUSION

This project has been developed to give us great advancement in the field of machine learning technology.
Emotion based music player fulfills to sort out the music based on the emotions of the user such as whether it is happy or sad . So, Totally our work aims to develop a player which is based on user need and it helps to revive in case of free time or if we want to hear music based on our current situation

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