



# EMOTION BASED MUSIC PLAYER

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**Abstract:** Manifestation plays an important role in determining one's current status and personality, helping to express and comprehend one's emotions based on various facial features such as eyes, cheeks, forehead or curve of smiles. Music is basically a form of art that calms and calms the mind and body. Taking these two aspects and putting them together our project is about getting a person's feelings through facial expressions and playing music according to a found situation that will calm the mood or simply calm the person and we can also find a quick song according to the situation, saving time to look at different songs and keep up with the development of a portable device that can be used anywhere with the help of haar cascade which provides the functionality of playing music according to the received emotion.

**Index Terms - Emotions, Songs, Testing, Detection, Playlist.**

## I. INTRODUCTION

Emotional-based music player is a new way that helps the user to automate itself play songs based on user feelings. Today, the population is growing have more stress due to poor economy, high living costs, etc. Obedience music is a stress-relieving activity. However it may be useless if the music does not match the current feeling of the listener. To solve this problem the program proposes an emotion-based music player, which is able to propose songs based on user feelings namely sadness, joy, neutrality and anger. Webcam captures the image (png, jpeg) of the user, and then extracts the user's face features from the captured image. Face is a form of non-verbal communication, emotions are seen using machine learning (vector support algorithm) when emotions are detected, the system raises playlists from a website loaded with playlists of that emotion saving a lot of user time over selecting and playing songs directly. It then uses a separation method to identify user feelings. Then the app returns a song with the same mood as the user.

## II. LITERATURE SURVEY

### 1. Emotion Based Music Player

The main aim was to efficiently extract features and facial parts that can be used to detect emotion and propose a method for generating music based on detected emotion.

### 2. Smart Music Player Integrating Facial Emotion Recognition And Music Mood Recommendation

The project focuses on an android application that would capture an image of the user and detect 4 emotions and develops a algorithm for generating a playlist and detecting emotion further also lets user to add a song and skip a song.

### 3. Real Time Emotion Recognition from Audio

The system focuses on detecting audio signals and rapid audio on computing devices. Features are detected and extracted to determine degree of similarity. However the efficiency was not very high in this research.

### 4. Smart Music Player Integrating Facial Emotion Recognition And Music Mood Recommendation

This project works on a database basis ..Database is Olivetti's face which contains 400Faces with different emotions in it. This database operates on the basis of a svm algorithm that separates data set from the test and training database .The test database helps to provide data for its learning or accuracy data while a training data set is particularly useful for queuing and indirect data afterwards. split and when the camera is used certain facial features are taken and used to get the training database separated, this helps to select a certain type of emotion (happy / sad) .then according to that emotional music will be played.

### 5. Mood Cloud

Mood Cloud a real-time music mood visualization it classifies music emotion into 5 types namely: aggressive, happy, party, relax and sad. It applies the SVM library to analyze emotion database. The result is then presented by Flash player.

**III. PROPOSED WORK**

Here we suggest Emotion-based music player. Emo Player is a music player that plays songs according to the user's mood. We aim to provide user-friendly music with emotional awareness. Emo Player is based on the idea of automating multiple interactions between a music player and its user. Emotions are expressed using the learning process of the Vector Support Machine (SVM) algorithm. In machine learning, support vector machines are supervised learning models with associated learning algorithms that analyze data used for classification and retransmission analysis. Finds the boundary between possible exits. Emotionally, music will be played from a predefined direction.

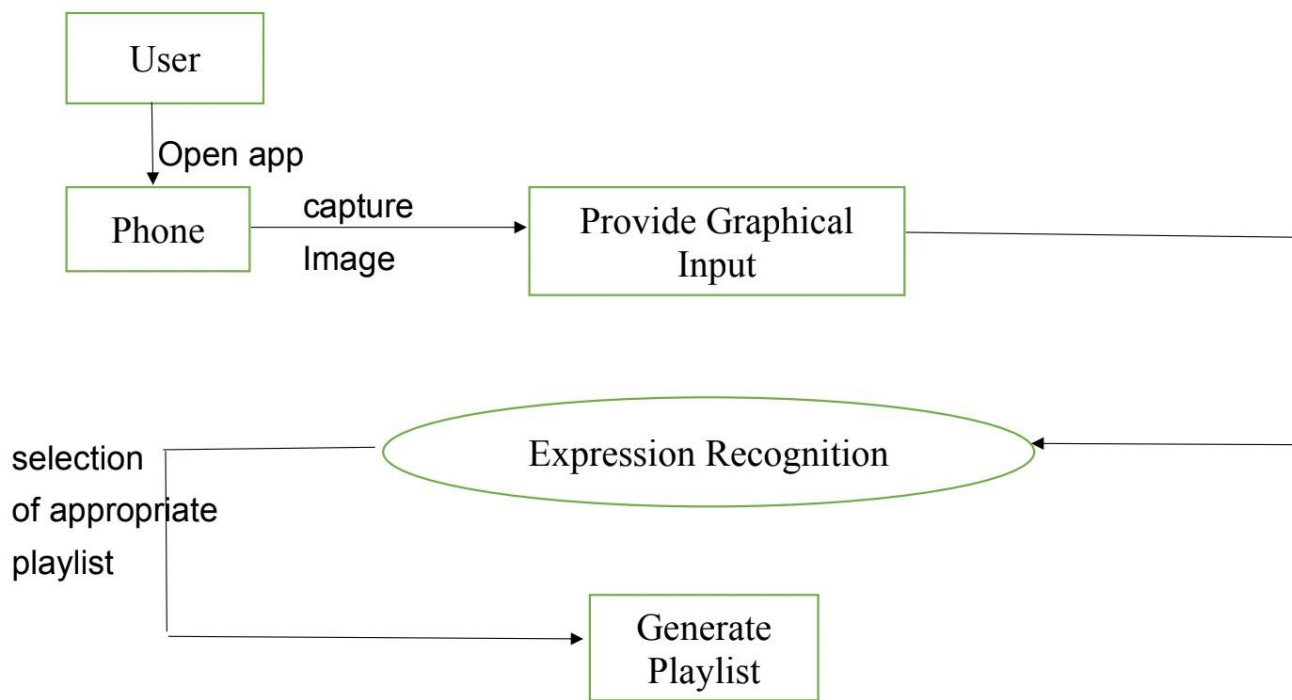


Fig 1. Pictorial representation of Emotion based music player

**IV. SYSTEM ARCHITETURE**

The System architecture is given in Figure 2.

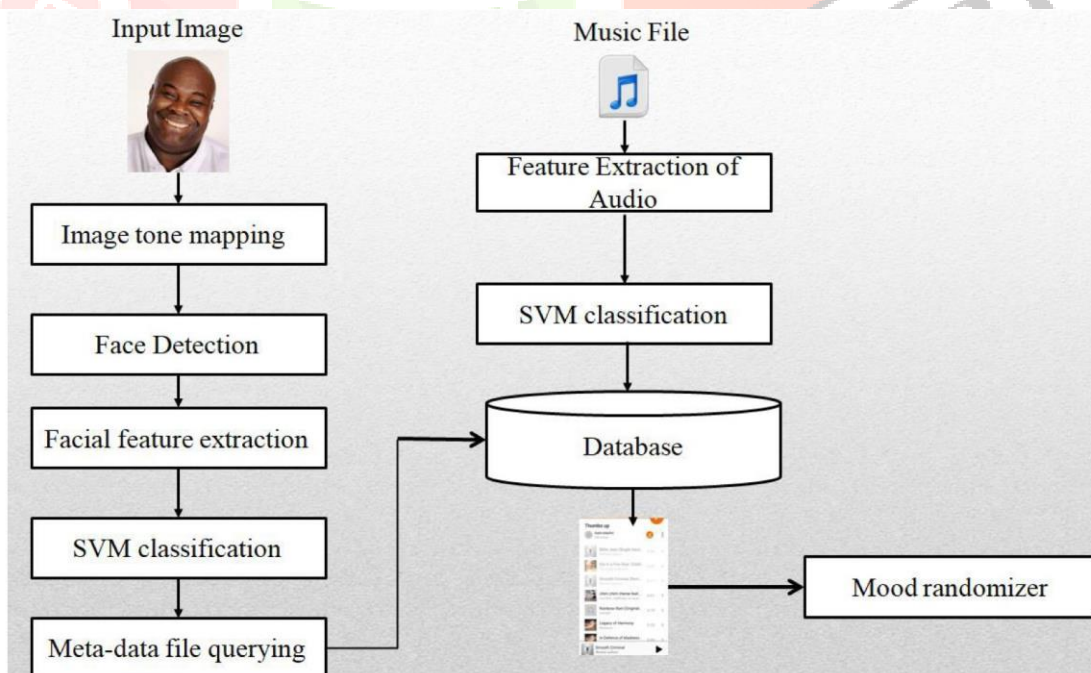


Fig 2 System Architecture

**a. Definition of Inclusion Prevention:**

The first step is to find the location of the face and perform a useful facial tracking; we used the "Viola-Jones" algorithm to find the surface of the whole image. The Viola Jones algorithm incorporates a total number of image pixels within rectangular areas

near the image and a few repetitions until a solid divider is obtained where each multiplication of the distribution of the weak divider weight is recalculated, so it can take longer to process. Trace the facial area instead of using the Viola-Jones algorithm individually, helping to avoid unnecessary loss of time and calculation. The “Viola-Jones” algorithm finds the first surface area where, in representation of the hue, a large center is searched as shown in Figure 2.

#### b. Block 1 Description

The second part finds a hidden RGB frame above the face box found in the previous step. From the grayscale version of the hidden frame we move on to the realistic image, using the corrective edge. The appropriate limit depends on many variables such as face position, web camera location, external light disturbance, optical position light etc. Therefore using the adjustment limit is very important for the success of this tool.

#### c. Block 2 Description

After face detection using a list of music that has already been posted on the website and from the emotional impression the appropriate song is played depending on the user's feelings and the result is displayed (Emotion). i.e. happy / sad / neutral / surprised)

### V. CONCLUSION

The Music Player has changed in many different ways since its first launch. Now-days people like to get more out of different programs, so the design of apps and the process behind it has changed. User prefers interoperability and complexity but simplicity to use the application. The purpose of the Emotion-based music player is to introduce a well-known music player generate a playlist based on the user's feelings and in doing so provide the user with ease how to get playlists. Based on the information obtained the above content does not simply provide in-depth information of the proposed software development program. The various components of the project have four presented on the pages above in sufficient detail.

### VI. ACKNOWLEDGEMENT

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