PRO FORMA FOR THE APPROVAL OF THE FOURTH SEMESTER MAIN PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Main Project Proposal No : _____
(Filled by the Department)

Academic Year   : 2021- 22

Year of Admission   : 2020

1. Title of the Project   : EMOTION BASED SMART MUSIC PLAYER

2. Name of the Guide   : Prof. K P Balachandran

3. Student Details (in BLOCK LETTERS)

Name	Register Number	Signature
ASNA AV	MES20MCA-2011	

Date:

Approval Status :   Approved / Not Approved

Signature of
Committee Members

Comments of the Guide   Dated Signature

Initial Submission   :

First Review   :

Second Review   :

Comments of the Project Coordinator   Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Dated Signature of HOD

EMOTION BASED SMART MUSIC PLAYER
ASNA AV

Introduction:

People tend to express their emotions, mainly by their facial expressions. Music has always been known to alter the mood of an individual. Capturing and recognizing the emotion being voiced by a person and displaying appropriate songs matching the one's mood and can increasingly calm the mind of a user and overall end up giving a pleasing effect. The project aims to capture the emotion expressed by a person through facial expressions. A music player is designed to capture human emotion through the web camera interface available on computing systems. The software captures the image of the user and then with the help of image segmentation and image processing techniques extracts features from the face of a target human being and tries to detect the emotion that the person is trying to express. The project aims to lighten the mood of the user, by playing songs that match the requirements of the user by capturing the image of the user.

Objectives:

The main objective of our music recommendation system is to provide music suggestions to the users that fit the user's preferences. The analysis of the facial expression/user emotion may lead to understanding the current emotional or mental state of the user.

More than 60 percent of the users believe that at a certain point of time the number of songs present in their songs library is so large that they are unable to figure out the song which they have to play. By developing a recommendation system, it could assist a user to make a decision regarding which music one should listen to helping the user to reduce his/her stress levels. The user would not have to waste any time in searching or to look up for songs and the best track matching the user's mood is detected, and songs would be shown to the user according to his/her mood. The image of the user is captured with the help of a webcam. The user's picture is taken and then as per the mood/emotion of the user an appropriate song from the playlist of the user is shown matching the user's requirement.

Problem Definition:

System can detect the facial expressions of the user and based on his/her facial expressions extract the facial landmarks, which would then be classified to get a particular emotion of the user. Once the emotion has been classified the songs matching the user's emotions would be shown to the user. And played it.

Basic functionalities:

It could assist a user to make a decision regarding which music one should listen to helping the user to reduce his/her stress levels. The user would not have to waste any time in searching or to look up for songs and the best track matching the user's mood is detected, and songs would be shown to the user according to his/her mood. The image of the user is captured with the help of a webcam. The user's picture is taken and then as per the mood/emotion of the user an appropriate song from the playlist of the user is shown matching the user's requirement.

Tools / Platform, Hardware and Software Requirements:

Hardware specification

- Processor :intel Pentium corei3 and above
- Primary Memory:4GB RAM and above
- Standard input output devices
- Standard camera

Software specification

- Front end: Python Django
- Backend :mysql
- Other technologies:Html,css,javascript.