



STAGEE I

PROJECT REPORT ON

Emotion Based Music Recommendation System

BY

Tejashri Shivaji Bachkar

Ankita Budhaji Gholap

Shubham Jayant Patil

Under the Guidance Of

Dr.S.U.Ghumbre

In Partial Fulfilments of
B.E. (Computer Engineering)

Department of Computer Engineering
Government College of Engineering and Research
Avasari Khurd, Ambegaon, Pune



Savitribai Phule Pune University

Government College of Engineering & Research Avasari Khurd

Computer Engineering Department

**Final Year of Computer Engineering
2022-23 Semester I**

Project Stage I Report

Project Group ID: 25

Title of the Project

Emotion Based Music Recommendation System

Team Members

Sr.	Examination No	Student Name
1.		Tejashri Shivaji Bachkar
2.		Ankita Budhaji Gholap
3.		Shubham Jayant Patil

Dr. S. U. Ghumbre
Project Guide

Dr. S. A. Thorat
Project Coordinator

Dr. S. U. Ghumbre
Head of Department,
Computer
Engineering Department



Government College of Engineering and Research
Avasari Khurd, Taluka- Ambegaon,
District- Pune, 412405

Certificate

This is to certify that the **Stage I report** of project entitled,
“ Emotion Based Music Recommendation System ” Submitted by
Tejashri Shivaji Bachkar (20221080), Ankita Budhaji Gholap (20221078) and Shubham
Jayant Patil (19121041) is record of Bonafide work carried out by
them under my guidance, in partial fulfilment of the requirement for the award of Final Year
of Engineering in Computer Engineering of University of Pune.

Date :

Place :

Sr.	Examination No	Student Name	Sign
1.		Tejashri Shivaji Bachkar	
2.		Ankita Budhaji Gholap	
3.		Shubham Jayant Patil	

Dr. S. U. Ghumbre
Project Guide

ACKNOWLEDGEMENT

We would like to take the privilege to express our sincere gratitude to everyone who has helped us for the successful completion of the project. We would like to thank **Dr.S.U. Ghumbre**, our Project Guide, and our HOD, for their support and guidance in completing our project on the topic “ **Emotion based music recommendation system** ” . It was a great learning experience. Your useful advice and suggestions were really helpful to us during the project’s completion. In this aspect, we are eternally grateful to you.

ABSTRACT

The facial expression is an important aspect in predicting human emotions and mood. Camera is usually used for face detection. There are various applications getting developed based on detection of human emotions. Few applications of emotion detection are market research, education, video gaming, software engineering, interviews, mental health and depression detection, criminal behaviour detection etc. In this proposed system develop a prototype in recommendation of music recommendation system based on human emotions. Based on each human listening pattern, the songs for each emotion are trained. Integration of feature extraction and machine learning techniques, from the real face the emotion are detected and once the mood is derived from the input image, respective songs for the specific mood would be played to hold the users. In this approach, the application gets connected with human feelings thus giving a personal touch to the users. Therefore the system concentrate on identifying the human feelings for developing emotion based music player using computer vision and machine learning techniques. For experimental results use openCV for emotion detection and music recommendation.

Keywords: Emotion Detection, Face detection, Music, Recommendation System and Deep Learning

INDEX

Sr. No.	Topic	Page No.
1.	Introduction and Motivation	1
	1.1 Problem Statement and Objectives	2
2.	Literature Survey	4
3.	Proposed System & Requirement Specification	9
	3.1 Proposed System and Methodology	9
	3.2 Software Requirement Specification	12
	3.3 Significances / Importance of the Project	14
	3.4 Scope of Project	15
	3.5 Deployment Requirements	15
	3.6 Project Cost Estimate	16
4.	Design (Flow Chart, DFD Diagram, Use Case Diagram, Architecture Diagram, ER Diagram)	18
5.	Development / Implementation Details	22
6.	Results & Discussion	27
7.	Conclusion & Future Work	28
8.	References	29