

**TATYASAHEB KORE INSTITUTE OF ENGINEERING AND
TECHNOLOGY, WARANANAGAR**

(An Autonomous Institute)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



A MINI PROJECT-II SYNOPSIS REPORT

ON

**“ Song Recommendation By Predicting Emotion using
Facial Expression”**

**Submitted by
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ABSTRACT:

The aim of this project is to develop an application which will predict the emotion of the person and that utilizes facial expressions to accurately identify an emotional state and presents the playlist of songs related to his current emotion. The system will employ machine learning algorithms and computer vision techniques to analyze facial expressions and predict the corresponding emotion. The project will involve collecting a large dataset of facial expressions across various emotional states, including happiness, sadness, anger, surprise, and fear, and using this data to train the machine learning model.

Technical Keywords : Image Processing, Deep Learning, Emotion Recognition, Feature Extraction, Image Classification

RELEVANT OBJECTIVES:

1. The objective of an emotion prediction system using facial expressions project is to develop a computer-based system that can accurately predict human emotions based on their facial expressions and recommending the best playlist for user based on his current emotion.
2. The system aims to identify and classify facial expressions and associate them with corresponding emotions such as happiness, sadness, anger, fear, and neutral. The ultimate goal of this project is to create a system that can accurately predict emotions in a range of applications, including healthcare, security, and entertainment.

PROBLEM STATEMENT:

For a person, sometimes it is difficult to choose the song based on his current mood or sometimes it happens that if person wants to listen the songs and he does not remember the songs related to his current mood.

LAYOUT OF SYSTEM ARCHITECTURE:

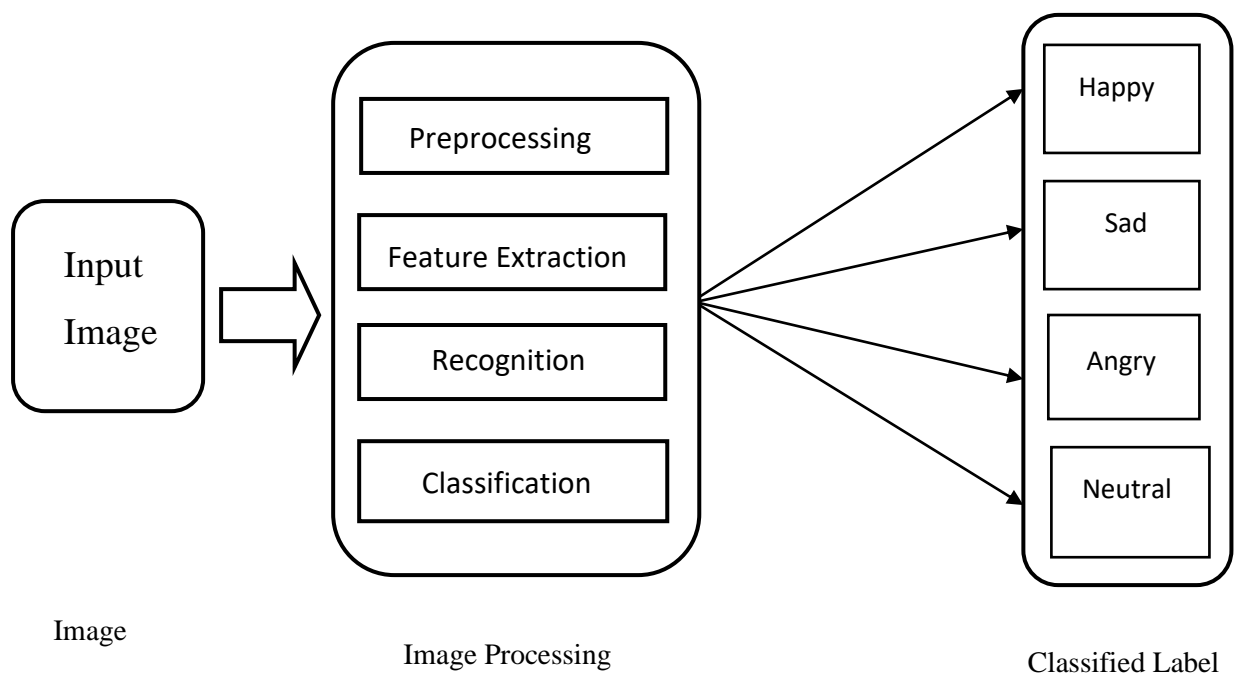


Fig.1: Emotion Prediction System

STRATEGY PLAN ASSOCIATED WITH PROJECT:

Work Task	Description	Duration
Domain Knowledge Problem Definition	Develop the system that accurately detects and classifies emotions based on the analysis of facial expressions and recommends the playlist for user.	15 Days
Requirement Analysis	Language : Python, HTML OS : Windows 11	15 Days
Design, Planning	Data Flow Diagram ,UML diagrams, Activity Diagram etc.	10 Days
Implementation	Modules	
Module 1 Creating Dataset	Collecting the images with expressions.	5 Days
Module 2 Preprocessing	Removing unnecessary artifacts from image.	10 Days
Module 3 Feature Extraction	Features are extracted from object in the image.	11 Days
Module 4 Training of model and Classification of emotion	Training the model to predict the emotion and by recognition of expression we classify the emotion and recommending the songs.	11 Days
System Testing	Unit Test, Test Cases	3 Days
Initial Report	Any Format	5 Days
Final Report	Using MS Office	5 Days

Table.1 : Strategy Plan

OUTCOME:

The outcome of an emotion prediction system using facial expressions project is accurate prediction of emotions based on facial expressions and recommending the playlist to user related to their current emotion.

MP-II GUIDE

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