### FACIAL EMOTION RECOGNITION

**A.SRI KALYAN REDDY**

**(19STUCHH010130)**



##### Faculty of Science and Technology

**ICFAI University, Hyderabad-501203, Telangana, India.**

### FACIAL EMOTION RECOGNITION

*Project report submitted in partial fulfilment of the requirements for the degree of*

##### Special project

**In**

##### Data science and artificial intelligence

*by*

**A.SRI KALYAN REDDY**

**(19STUCHH010130)**

Under the guidance of

###### Dr.

Assistant Professor

Department of Computer Science & Engineering ICFAI University, Hyderabad

##### Faculty of Science and Technology

**ICFAI University, Hyderabad-501203, Telangana, India**

**Faculty of Science and Technology**

ICFAI University, Hyderabad-501203, Telangana, India.

**Declaration**

I hereby certify that the work presented in this thesis entitled “**FACIAL EMOTION RECOGNITION**" in fulfilment of the requirements for the Special project Data science & Artificial intelligence and submitted to ICFAI University, Hyderabad is an authentic record of my own work carried out during the period from August 2022 to November 2022, under the supervision of Dr.

The matter embodied in this thesis has not been submitted by me for the award of any other degree of this or any other University/Institute.

This is to certify that the above statement made by the scholar is correct to the best of our knowledge.

**A.SRI KALYAN REDDY (19STUCHH010130)**

The Special project Viva-voce examination ofA.SRI KALYAN REDDY (19STUCHH010130) fourth Year Student, which has been held on . . . . . . . . . . . . .and is recommended for the award of the B. Tech degree.

**Sign of Supervisor**

##### Faculty of Science and Technology

ICFAI University, Hyderabad-501203, Telangana, India.

**Certificate**

This is to certify that the project entitled “FACIAL EMOTION RECOGNITION**”,** A.SRI KALYAN REDDY (19STUCHH010130) submitted by in partial fulfilment of the requirement for the Special project in *Computer Science & Engineering of ICFAI University, Hyderabad, Telangana, India*, is a bonafide record of original research work carried out by him under my guidance and supervision.

This work has not been submitted elsewhere for the same purpose.

Assistant Professor

ICFAI University Hyderabad.

###### Mr.

Data science and artificial intelligence

**ABSTRACT**

We all have emotions which are dependent on different situations and people express their emotions on their faces in real life to demonstrate their psychological activities and attitudes in interactions with others. Here our task is processing a human facial expression and categorise it by using an Emotion Detection extraction which helps in facial recognition. We are going to use a method of recognising an emotion by a model for detecting, extracting, and evaluating the facial expressions which will enable automatic recognition of human emotion in images and videos. Because the human face is difficult to interpret, emotion recognition can be further subdivided into basic emotion classification and compound emotion classification.

In this project, we address the problem by employing a Conventional Neural Network (CNN). Here the model typically detects the emotions, and the trained classifier produces the output based on the given features. The algorithm can achieve reasonable accuracy, depending on the testing set and test emotions.

KEY WORDS: Conventional Neural Network (CNN), Emotion Detection, facial Recognition

**LITERATURE SURVEY**

The project FACIAL EMOTION RECOGNITION allows you to analyse a single person's emotion using this emotion detector. Researchers noted that by developing an effective emotional detector In the medical field, where it may be possible to recognize patients' emotions, in automatic driving systems it can improve the driving experience and in the marketing industry, particularly in super markets where we can observe whether or not a customer is satisfied with a product.

Traditional research has shown that areas in image processing process have a tendency to produce better results. On varied scales as well, to make the most of them. Additional layers can be used to increase the effectiveness of the model, but in the current environment, a deep learning-based technique can also produce good results. In this research, we describe a dilated convolution-based approach to learning about convolutional neural networks. Where we'll build a deep network to identify facial emotions. There will be several dilated convolutional layers for it to learn. We increased the size of the welcoming area of and our network to gather more contextual information.

where, we will collect the data that has been broken down into various classes and label it in a sequential manner. There are numerous emotions that a human can experience in facial emotion detection. Therefore, we will concentrate on a few courses and train a model that can detect face emotion. The machine learning model will then attempt to differentiate between various inputs before producing results. It will use facial recognition to find human faces and artificial intelligence techniques like neural networks to analyse human emotions.

Introduction

REFERENCES’

1. <https://web.stanford.edu/class/ee368/Project_Autumn_1617/Reports/report_pao.pdf>
2. <https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1849&context=purc> – CNN