

Face Reorganization through Student Attendance and Facial Expressions

¹N.Bhagya Laxmi,² Y. Chittibab, ³R.Tulasi Ram

Department of ECE, CMRCET, Department of ECE, CMRCET, Department of ECE, CMRCET

Article Info

Volume 82

Page Number: 8460 – 8463

Publication Issue:

January-February 2020

Article History

Article Received: 18 May 2019

Revised: 14 July 2019

Accepted: 22 December 2019

Publication: 07 February 2020

Abstract:

In this paper Some of the colleges and schools is using facial recognition to mark the attendance but here we are utilizing facial recognition to monitor the behaviour of their students .The innovation classifies the students based on their extend of feelings from aversion to cheerful (and a entire have of others).The framework moreover cross-checks the face of all students against the school database to check the attendance and has the capacity to foresee on the off chance that a student are feeling sick and also we can check the students listening the classes are not, here the emotions of the students will be calculating through the emojis here we are checking 7 types of facial expressions.

Keywords: raspberry pi, python, iris sensor, digital camera.

I. INTRODUCTION

The perils of AI are all around recorded. Be that as it may, with regards to utilizing it to screen the conduct of individuals, which side of the line do you remain on – do you think this is valuable or nosy? China has been unequivocal in utilizing AI to change its method for living and they are presently utilizing it in instruction also.

Here we are utilizing AI as facial acknowledgment to screen and break down how understudies are acting and reacting to the instructor. The innovation is incorporated with cameras and is designated "brilliant eyes". It plans to give continuous information to the instructors (and directors) on the feelings their understudies are showing in the class. The basic idea driving this framework examinations the outward appearance of the understudies and orders them into the beneath classes: Surprised Sad Angry Happy Antipathy Afraid Neutral

The innovation has likewise been customized to record different activities understudies perform – like perusing, composing, raising their hands, and

regardless of whether an understudy nods off. This not just comprehends which understudies are slacking, it is likewise helping educators adjust and tailor their instructing style to get an increasingly positive reaction.

Another utilization instance of this framework is to screen the participation of understudies by checking understudies' countenances with the records it has in the school database. The framework additionally figures out how to distinguish whether an understudy isn't feeling great and banners it to the educator.

Lamentably the consequences of most activities have not yet been distributed. How does the school respond when an understudy is hailed as dismal or irate? Imagine a scenario where an understudy nods off. These are only a portion of the inquiries that are yet to be replied. Be that as it may, one thing is for sure, China is miles in front of the rest with regards to utilizing facial acknowledgment innovation to help and screen it's natives.

Utilizing face acknowledgment for examining conduct of understudies in an intriguing

methodology however utilizing the frameworks in schools has raised evident protection concerns. There are upsides to this too however – it enables the school to tailor its methodology better to keep the understudies included.

II. ARTIFICIAL INTELLIGENCE

The term artificial intelligence was coined one thousand hundred feet see things but it has become more pop today things to increase data volumes advance algorithms and improvements in computer power and storage early artificial intelligence research in one thousandth hundred and fifty explore topics high problem solving and symbol book methods it makes a post bore for machines to love from experience but just new in person to form human eye tasks first examples that you hear about today from chest pain computers to so for and cancer it have to a deep learning a natural English you're saying you see these technologies computers can be trained to accomplish surgeon topics [UM] but processing the ultra mouse with data and recognizing patterns in the data now i'm on issuing chichen in the car social new all technologies been tested in the chinese education system.

The art finished intelligence being used as a facial recognition software this has been include physics forty reasons worldwide was point insect is such as the priest department this technology has been proven so what in india facial recognition us found a thousands of missing children to a bit in china they recently started using this technology advertising as a behavior much meant to be can scan the faces of solutions that thirty second into bills i'm just one of seven emotional state these include get happy surprised angry new ones as a point it the by say on the war with the front of the class and isn't a huge distraction however has these worry amongst students are the school so the purpose of this store was to let the teacher when their students misbehaving behaving the teachers well the attention of these students back to the task a and we from repeated to be a shoe the students have understood

that data created bother device can give the educators and idea where the students are having the could see paying attention

This talk and also be used to want to the teachers education start in efficiency china has a very different approach to education the countries such as the you is that some china's people have take into their social media accounts to express that is approval of the new devise her reason issues of prophecy and stress for the children how over the scope prince for state of the students up a common accustomed to the device our students that you can show a dramatic change and their behavior one of the teachers noted that sense being as stored students pay more attention well this for me china it's the only one using this technology at the moment it's likely that many classrooms rooms in the future

III. REAL TIME FACE RECOGNITION SOFTWARE

This project is divided into two parts: creating a database, and training and testing.

In a program to detect the faces in this project. Write a program to recognize the face that is being captured by the previous program so when it's run it and here it shows student name and stores in data base, and we need to download a python library that is called hello so go to start type CMD and you need to right-click it and run it as administrator join it go to CD C either oops 27 / SC script now type e IP install P I double l / w hello enter and check once if it is installed or not, if it so you can install after installation , start open your project folder create a new folder name it face recognition and we created a script and a casket hard casket XML was there so we need this casket file XML file and in the previous script we need the script also for rejection.

we have three steps for recognizing the face first we have to create a data set and then we need to train the recognizer from the data set and have our detector detect the faces and store the data in data set , first let's create the data set creative for the data

set creation and run a script and name it data set theater and create a script called trainer and create a ticket , first create a dataset create a script so let's close all ,if it not working then creating a new file, so we don't need open previous files. If it was our previous script and we are going to use this script to create the data set creator just copy it.

Whenever the program captures the face from cc camera ,we will write that information in a folder before capturing the face we need to tell the script whose face it is for that we need an identifier so let's call it User ID and we can take it from the terminal or interpreter input and we'll take user ID we will put the ID here and we will store the ID with the face so that later we can identify whose face it is so now we captured a face we need to write it in a file so to write it we have a function called C v2 dot I am right let's save it inside a folder called data set and I wanted to the camel case and then let's use the file name as user dot the ID appending the ID and after adding the ID with the name.

The sample number here means the for the first sample it will be user ID then one for the second it will be user ID then to something like this let us happen the number and right now we don't have any number correct so let's create a number I or number equals zero the beginning and we will increment it by 1 every time it detects a face so sample number equals number plus 1 and now we can add number with this we have written the face in a file and add the extension so dot jpg and with that it's done so before continuing to the next loop I want to give it a little pause wait key of 100 millisecond I don't have to quit it by pressing any key so remove this okay so how it will get out of the loop to get out of the loop let's say the sample number let's say we want to take 11 sample for one phase so if sample number greater than or let's say 20 do better beer okay Rick so done let's have it oh it does set theater and save so this will create a dataset but before running this script we need to create this folder let's create this folder it set

yeah so let's run it and see what happens let's say student ID is one something is not right .

The input image which will be the grayscale image gray but we will only store the portion of it which is from y to y plus edge and for the x-axis to from our X to X plus width so now we have captured it let's save it and write one yeah now it created by the data creator.

IV. BLOCK DIAGRAM

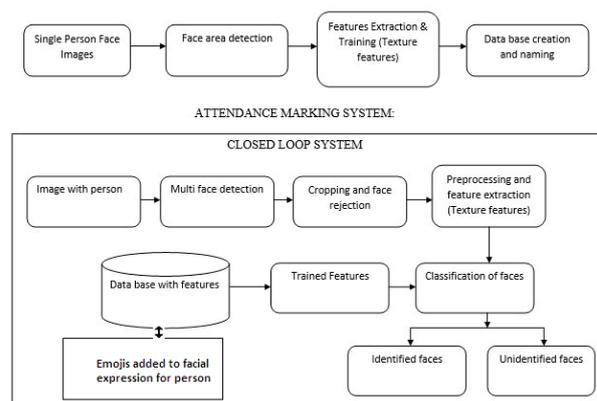


Fig .1. Block diagram of attendance and facial expressions

We collecting the images of the students and uploaded into our college database system , first person data we collecting through image or camera capturing the image of the student and the system detects the student face area detection ex : eyebrow sizes and face shape through system identifying the student. After getting the image from the camera we save the student details through name or roll number.

When the person entering in the class room through CCTV we checking the student facial expression to The technology classifies the students based on their extent of emotions from aversion to cheerful (and an entirety have of others). The system to cross-checks the face of all students against the school database to check the attendance and has the capacity to anticipate in the event that an student are feeling debilitated and also we can check the students listening the classes are not, here the

emotions of the students will be calculating through the emojis here we are checking 7 types of facial expressions .

V. RESULT

In this way the participation are recorded in the database by the examination with the picture present in the picture enrolment database by the utilization of neural systems. In this when the faculty lecturing at that time we can recognizing the how many students are sincerely listing the class work and how they felt we can recognizing through their facial expressions using emojis.



Fig2:facial expressions using emojis.

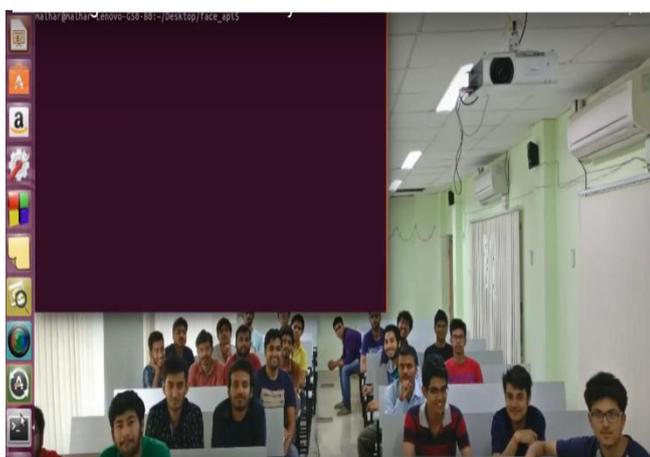


Fig3. Face detection in database system (class room).

In Fig3. It checks facial expression through the student details in the College data base System ,college or school cc cameras Scans the student's behavior in the class room, and check in the data base the students details and mark the attendance

every hour and also it checks the student behavior and analyze and give the details to the system and the system displayed how many members are natural ,and sad, etc expressions show through emojis it show in fig 2.

VI. CONCLUSION

The System Scans the student's behavior in the class room every 40 seconds and it recognizes seven different expressions like neutral,happy,sad etc., It also psychoanalysis in that six types of students behaviors of the students, such as reading, writing ,raising, listening, etc.

Teachers are able to efficiently analyze the behaviors of students, The system is also used to monitor attendance. It only collects facial recognition and stores it in a data base(college/school). It also helps teachers to re think their teaching style using statistical data.

REFERENCES

1. C. Berrou, A. Glavieux, and P. Thitimajshima, "Near Shannon limit error-correcting coding and decoding: Turbo-codes." in IEEE Int. Conf. on Commun.. ICC, 1993.
2. ETSI, "3GPP - TS 136.212 - Multiplexing and channel coding (R. 11)."
3. I. Hussain, M. Xiao, and L. K. Rasmussen, "Erasure floor analysis of distributed It codes," IEEE Trans. Commun., 2015.
4. L. Perez, J. Seghers, and D. J. Costello, "A distance spectrum interpretation of turbo codes," IEEE Trans. Inf. Theory, 1996.
5. C. Berrou, Y. Saouter, C. Douillard, S. Kerouedan, and M. Jezequel, "Designing good permutations for turbo codes: towards a single model," in IEEE Int. Conf. on Commun.. ICC, 2004.