OPENCV AND HAAR CASCADE BASED MONITORING SYSTEM

INTRODUCTION

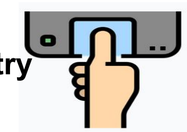
A facial recognition system uses biometrics to map facial features from a photograph or video. It compares the information with a database of known faces to find a match.

PROBLEM STATEMENT

To devise a system that marks student's attendance through FACIAL RECOGNITION, hence automate the existing technology. The system should also be able to show required analysis based on the available data.

CURRENT MARKET STATUS

Manual Entry



Biometric

Iris

RFID : Radio Frequency Identification

NEED OF WORK

Cross Check

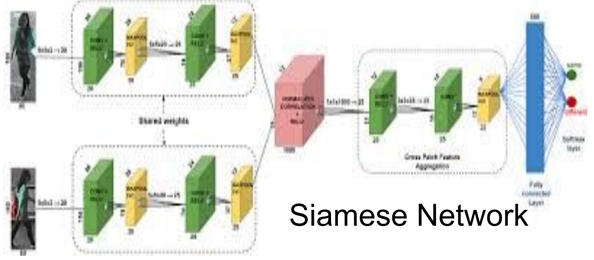
No Proxy

Save Time

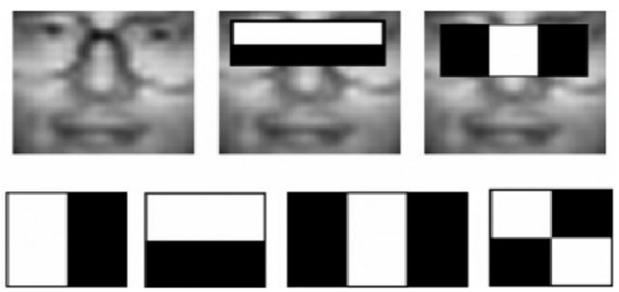
Less Paperwork

OUR APPROACH

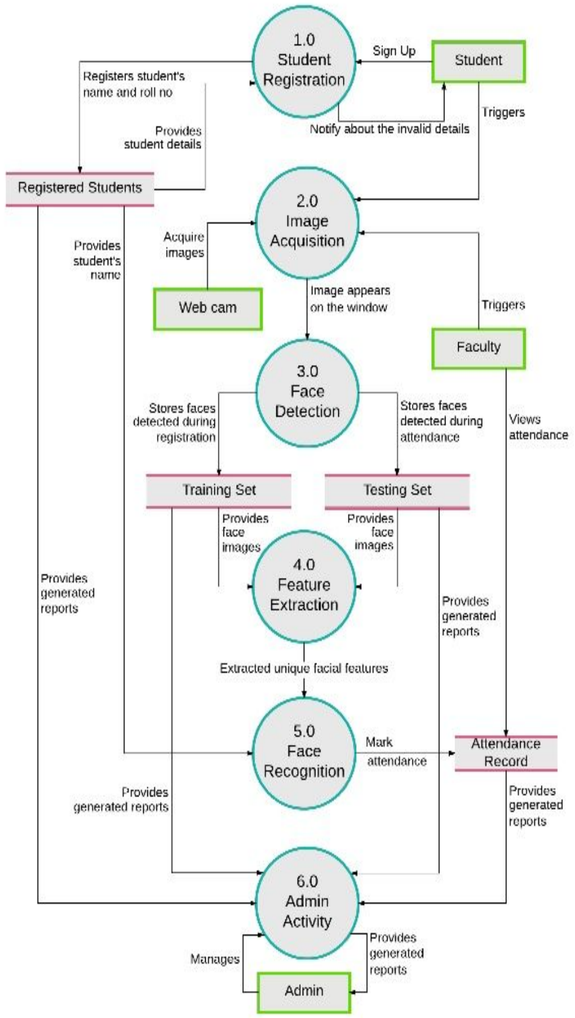
- Our system marks attendance of students through facial recognition.
- System is built on a special type of CNN architecture known as **Siamese Network**.
- For facial recognition **haar cascade** of opencv is used.

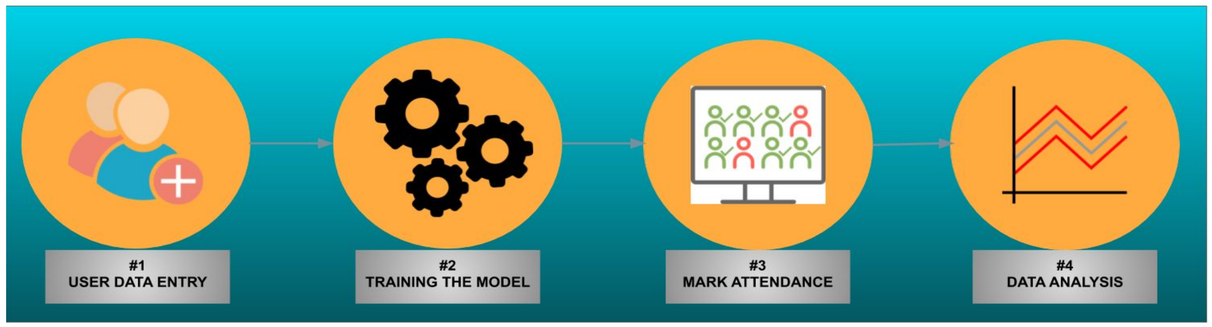


Siamese Network



Haar Cascade

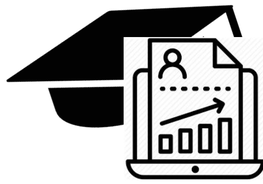




SCOPE

Unknown person Detection

Overall Student analysis system



Monitoring System for criminals in jail

RESULTS

SR NO.	ACTION	INPUT	Expected OUTPUT	ACTUAL OUTPUT	TEST RESULT
1.	Capture Image	Person's Face	Images are captured and stored in folder	Images are captured and stored in folder	PASS
2.	Train Image Dataset	Stored Images	Model should be trained	Model is trained	PASS
3.	Face Recognition	Captured image through Webcam	Person should be recognised and attendance should be marked	Person should be recognise d and attendanc e should is marked	PASS
4.	Graphical result	CSV	Graphical analysis should be shown	Graphical analysis should be shown	PASS

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