

Problem Statement

# Attendance System ( ML Based Solution )

Course : Product Design Practice

**“ Group Members “**

Amit Sharma  
Rathod Raju  
Vibhor Srivastava  
Kundan Kumar  
Susmitha  
Ch. Sai

# Literature Survey

- Approximately More than 10 mins is wasted out of the crucial time allotted for the class timings for attendance.
- Teachers have to maintain a attendance sheet and carry it every time they come to class , which is a burden for teachers.
- There is also a problem of students giving proxy which encourages non-attendance of classes and students become lazy.

# Solution To The Problem

- To design a device which captures images of every person entering the room and recognises him/her from the records that has been initially trained on.
- If the image of person matches with any of the stored students record(face) then attendance of that student is marked for that day.

# Solution To The Problem

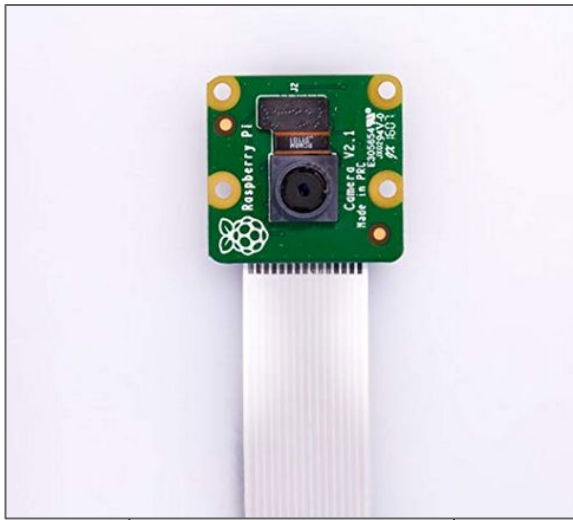
Continued...

- We Will Dump the Software into the Hardware ( Raspberry pi ) and will be installed at the class.
- It will Continuously capture the frames from the camera and predict who the person is entering.
- After marking the person face .. it will mark attendance for that person in the image captured and store in the database.

# Bill of the Material

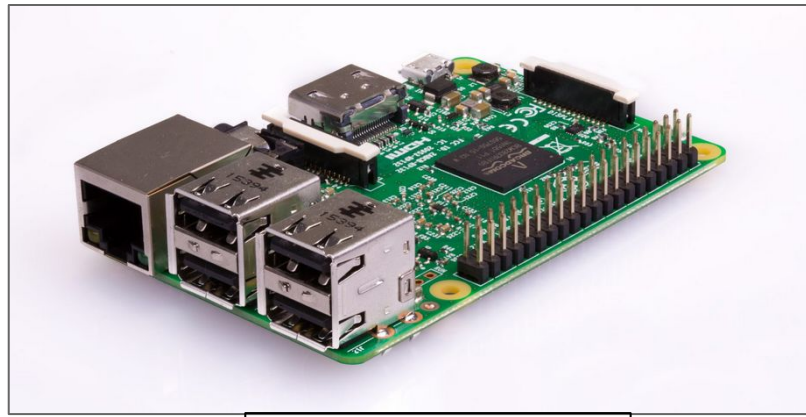
\$\$\$

| Item           | Approx. Cost |
|----------------|--------------|
| Raspberry Pi 3 | Rs 2500 /-   |
| Camera Module  | Rs 2000 /-   |



**Rs 2000 /-**

Camera Module



**Rs 2500 /-**

Raspberry Pi 3

# Prices



Akash  
29 items



Amit  
30 items



Ashutosh  
35 items



Kundan  
30 items



Milton  
25 items



Nischay  
26 items



Sanjeev  
23 items



Shubham  
30 items



Vibhor  
26 items



Zubair  
17 items

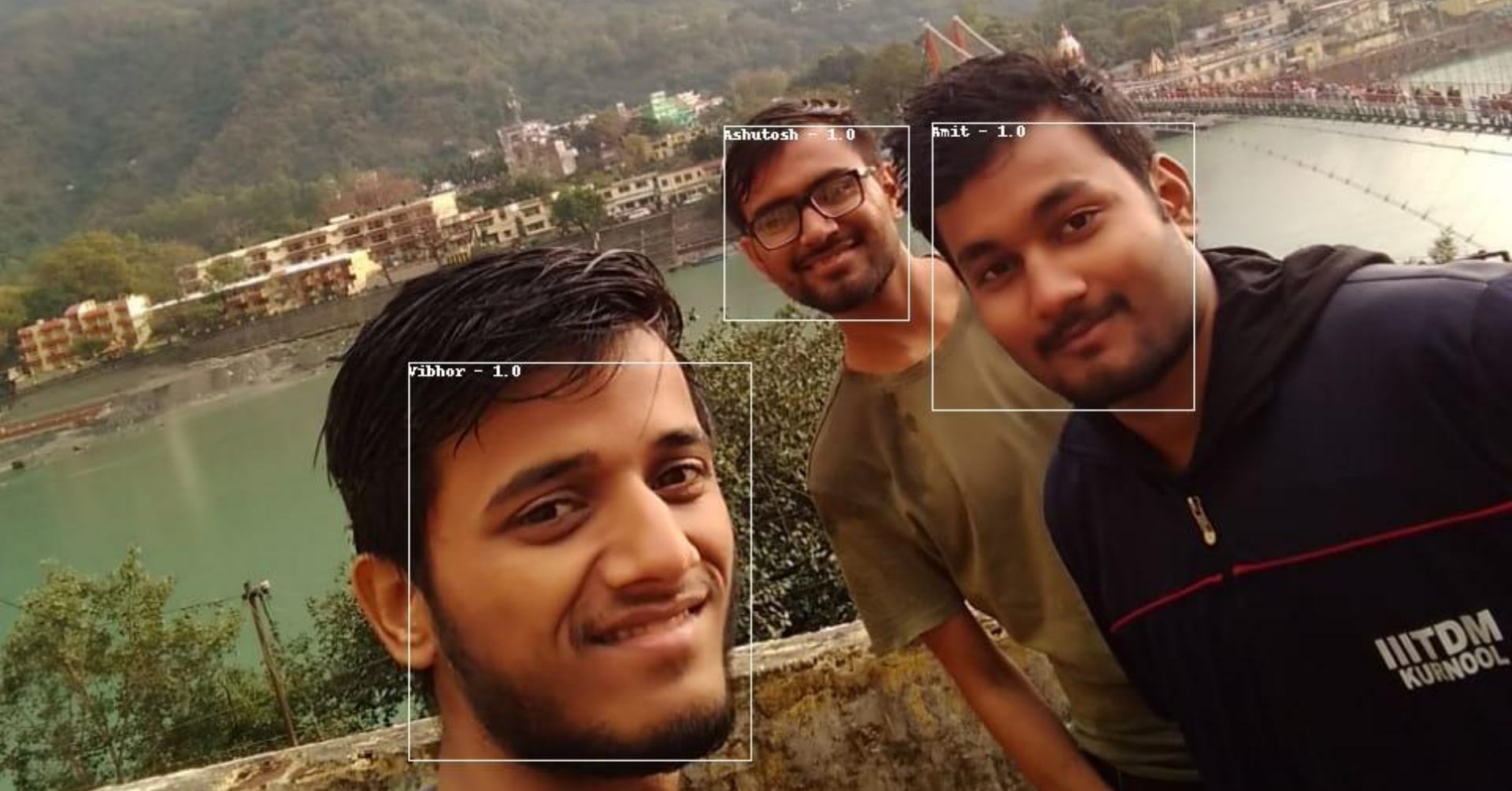
# Training Data

# Results



## Results



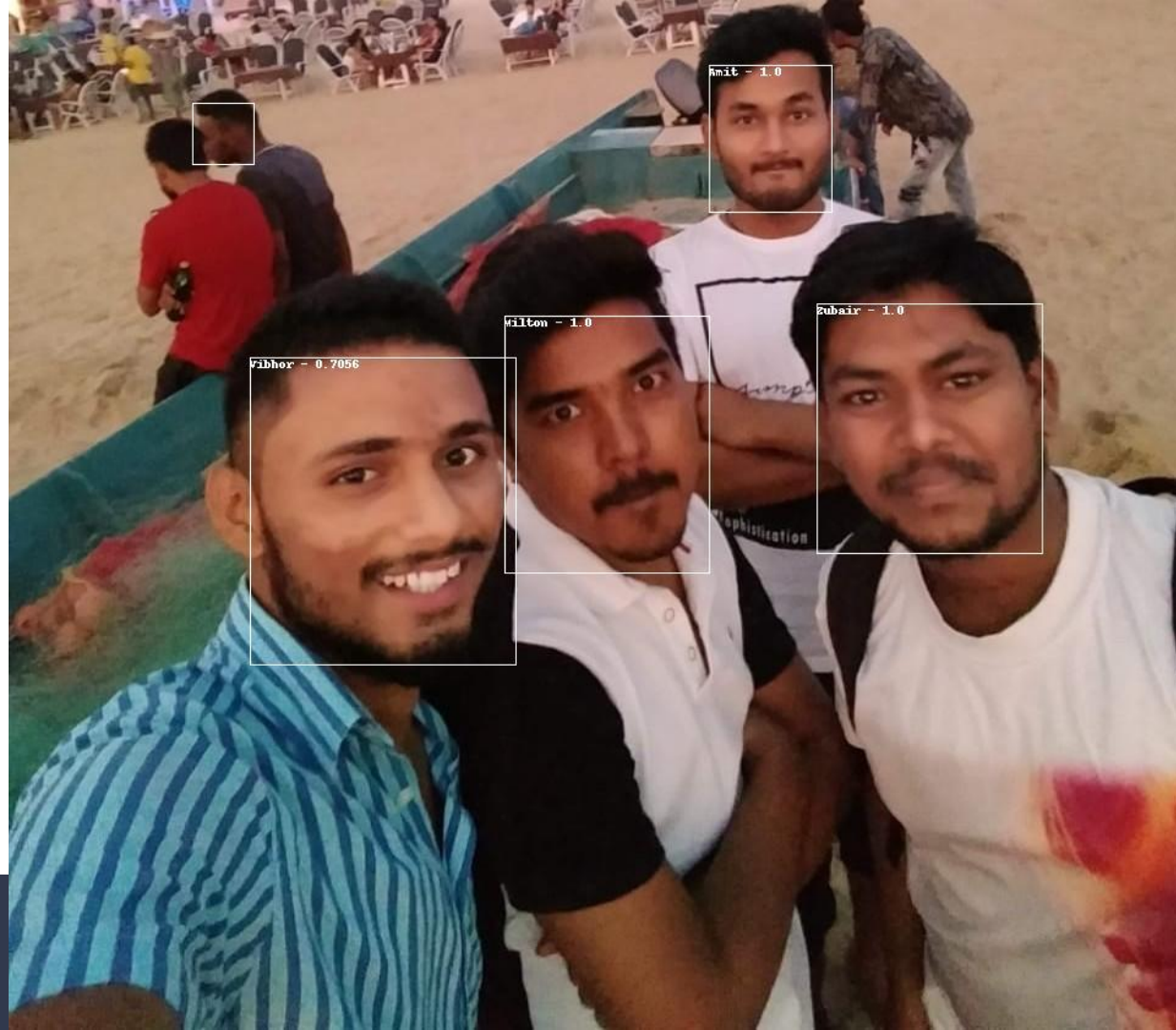


Ashutosh - 1.0

Amit - 1.0

Vibhor - 1.0

IITDM  
KURNOOL



Amit - 1.0

Vibhor - 0.7056

Wilton - 1.0

Zubair - 1.0





Amit - 1.0

Milton - 1.0

Zubair - 1.0

Vibhor - 0.7056

|    | Standard | Standard   | Standard                   |
|----|----------|------------|----------------------------|
| 1  | Name     | Attandance | Time                       |
| 2  | Nischay  | Yes        | 2019-03-20 01:20:19.463001 |
| 3  | Ashutosh | Yes        | 2019-03-20 02:12:46.697218 |
| 4  | Vibhor   | Yes        | 2019-03-20 02:14:35.900898 |
| 5  | Vibhor   | Yes        | 2019-03-20 02:18:10.952835 |
| 6  | Amit     | Yes        | 2019-03-20 02:18:12.037971 |
| 7  | Vibhor   | Yes        | 2019-03-20 18:37:40.920375 |
| 8  | Amit     | Yes        | 2019-03-20 18:37:42.492947 |
| 9  | Ashutosh | Yes        | 2019-03-20 18:37:43.588509 |
| 10 | Zubair   | Yes        | 2019-03-20 18:40:40.563109 |
| 11 | Vibhor   | Yes        | 2019-03-20 18:40:41.648377 |
| 12 | Milton   | Yes        | 2019-03-20 18:40:42.717409 |
| 13 | Amit     | Yes        | 2019-03-20 18:40:43.798602 |

Excel