**Face Recognition based Attendance and Alert System**

**Abstract :**

The software uses its face recognition capability to make attendance management more efficient and hassle free.

The software which is developed mainly using Python can recognize the faces of students, mark their attendance and alert the parents of absent children via WhatsApp about the situation. OpenCV is used to detect and recognize the faces with the help of any sort of camera ( it can be a normal mobile camera to an AI based CCTV cam ).

The use of this system helps in saving a reasonable amount of time and thus increasing the productivity by multiple times.

The program consists of four modules

1. The first module is used to register the face of a new child.
2. The second module recognizes the student faces during the class time and marks them as present.
   * 1. Teachers can edit the list of students before the attendance is updated on the database.
3. The third module updates the attendance in the database.
4. The fourth module fetches the attendance data and alerts the parents of the absent children.

There are five different types of users

1. Admin : The system admin has total admin privilege over the system and can make changes to the system but can’t monitor any data.
2. Office : The office of the institution they have total admin privilege over the system and can add or remove any user to the system.
3. Teacher : They have moderator privileges over the system and can mark any student absent or present by overriding the system.
4. Student : They only have view permissions and can view their attendance status.
5. Parent : They only have view permission and will be notified if their children are absent in the class.