



PROJECT PROPOSAL:-

1. Project Title: -

SMART ATTENDANCE SYSTEM USING PYTHON.

2. Project Scope: -

1. Any organization, either large or small, requires an employee attendance tracking system for effective maintenance of projects and tasks. It is essential for the management to have records of the time and attendance of each employee to handle discrepancies and variations within the organization. In today's competitive world, each and every technology has drastic improvements when automated. Since, manual attendance tracking is a tedious and inefficient process for a group of employees, the smart attendance management system with face recognition capabilities takes a huge leap in this scenario.

In general, a person can be recognized with his/her face more effectively. Hence a smart attendance management system can identify the employees face using their fingerprints within the organization. The system can be integrated with the existing biometric device and the faces of employees can be detected with a high accuracy rate. The matched face is used to mark the attendance of the employee. This is an efficient module that comprises of face recognition capabilities for the management of attendance records of employees.

2. Automatic Facial Recognition is a competent biometrics technology that is used in human machine interaction, security systems, and image processing

techniques. Smart attendance system with a modern face recognition system is a real-time solution to handle employees with their day-to-day activities and can be used to detect human faces automatically by capturing the current date, time, and location. This kind of smart systems can save a lot of money spent on the biometric devices and eliminates manual works.

3 .In the present situation, maintaining manual attendance system is too complex and time-consuming. An efficient smart attendance management system can be used to improve the organizational ethics and work culture. The enrollment of the employees in the system is a one-time process and their face will be stored in the database. The automated attendance management system can detect a person's face using a digital real-time image. The presence of each employee is updated in the database daily and the results are more accurate in a user interactive manner

4.Functions of a smart attendance system

A smart attendance system is very crucial and important for any kind of business. A good and efficient attendance system helps in monitoring the punctuality of employees and managing the absence of people. A smart attendance system enables setting up the attendance workflows and maintaining a proper validation of employee time-sheets.

1. Attendance Tracking In Real-Time

A student attendance management system helps to track and store the attendance data in real-time. Besides student and staff attendance, the system also helps school admins in maintaining and tracking leaves applications, arrival & departure times, lunch breaks, and vacations of staff members & students.

2. Absence of Proxy Attendance

In many schools, especially the higher grades, students manipulate the daily attendance with proxies, buddy punching or tampering of records in a

matter of concern. Using a biometric/RFID system with an attendance module makes it virtually impossible to fake attendance, as each individual's biometric information is unique.

3. Requirements: -

- Intel Core i3 3rd gen processor or latest.
- 512 MB disk space.
- 512 MB RAM.
- Any external or in-build camera with minimum pixel resolution 200 x 200 (300ppi or 150lpi) 4-megapixel cameras and up.

SOFTWARE SPECIFICATIONS:

- Microsoft Windows XP or later / Ubuntu 12.0 LTS or later /MAC OS 10.1 or later.
- Python Interpreter (3.6).
- TensorFlow framework, Keras API.

Python OpenCV2, SciPy, qimage2ndarray, winGuiAuto, pypiwin32, sys, keyboard, pyttsx3, pillow libraries

STUDENTS DETAILS

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APPROVAL AND AUTHORITY TO PROCEED

We approve the project as described above, and authorize the team to proceed.

Name	Title	Signature (With Date)