Attendance System Using Facial Recognition

Overview:

The current procedures for recording attendance, student and/or employee, vary from manual identification, application based monitoring on digital systems to recording in/out times through RFID tagging. In this project we are trying to record attendance from live videos coming from a fixed camera in well placed areas on campus using facial recognition.

Phase 1 :

As part of the first phase we will setup a camera module at the entrance of the Hyderabad and/or Bangalore offices. These cameras will record the flow of people in and out of the premises. We will record the first instance a person is entering the office and the last instance she/he is leaving. While identifying the first instance a person is entering the office, a greeting message will also be played. This message will include the identification of the person.

A major part of Phase-1 is to identify the right set of hardware components. This includes camera, speaker and the computing unit that will integrate them. Points to consider for the selection is quality, durability and choice of positioning of the units in the office premise. In the software front we need to test the facial recognition code and fine tune it to our requirement.

Key details needed to be considered is speed and accuracy. Apart from identifying the person in the image, we have to keep a record of their movement in/out of the office while also greeting them when system recognizes them for the first time.

Phase 2:

Once we have successfully achieved the first phase, we will move into implementing Classroom Attendance on top of the project done in previous phase.