AI Based Smart Attendance System

Group No. 20

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Introduction

- One necessary component of every education system is recording students attendance.

- The entire process could be time consuming if it is managed manually.

- Automation of recording student's attendance is beneficial for faculties as well as students and parents too.

Objectives

- To develop a smart attendance management system using facial recognition that will take care of the problems which are being faced in manual attendance systems.

- To develop a message alert system to notify parents about ward's attendance.

- To make a dashboard to review and visualize attendance of a student.

- To make it useful not only to wards but also to faculties for scheduling or rescheduling the lectures.

Problem Definition

- To record the attendance can be a great burden on the faculties if it is done by manually, and sending report of each student's attendance to respective parents also becomes tedious.

- To schedule the lectures for faculties at given time slot becomes easy.

- To provide visualization of ward's attendance can be easily done by parents.

- By utilizing this framework, the problem of proxies and students being marked present even though they are not physically present can easily be solved.

Technological Stack

- **Software and Languages:**

1. Python3 (libraries required OpenCV and Chart.js).

2. HTML, CSS.

3. MySQL.

4. Flask web framework

- **Algorithms used in face detection and recognition process:**

1. HCC (Haar Cascade Classifier)

- **Hardware:**

1. Webcam.

2. CCTV Camera.

Proposed System Architecture/Working

- **Architecture:**
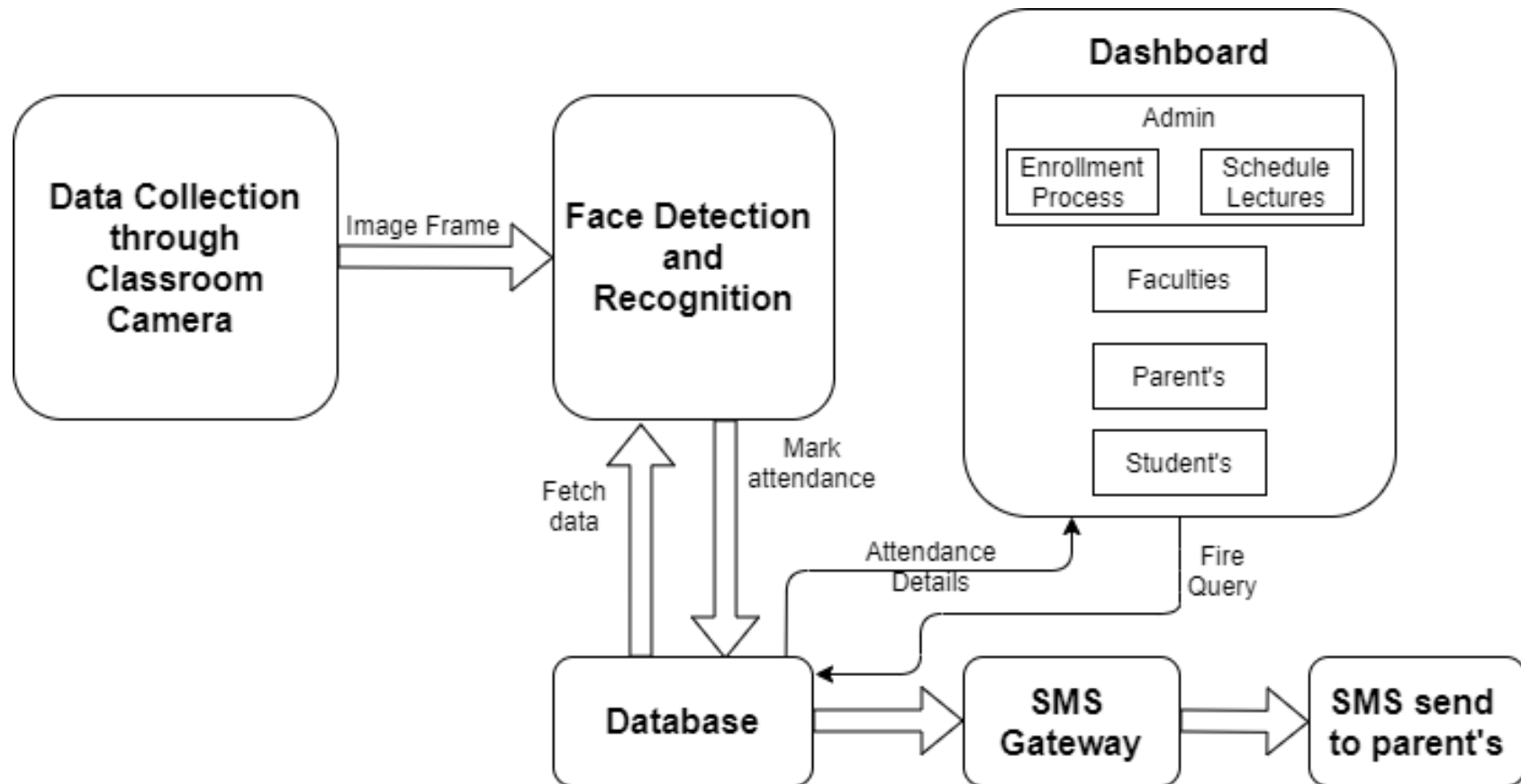
System architecture

Proposed System Architecture/Working
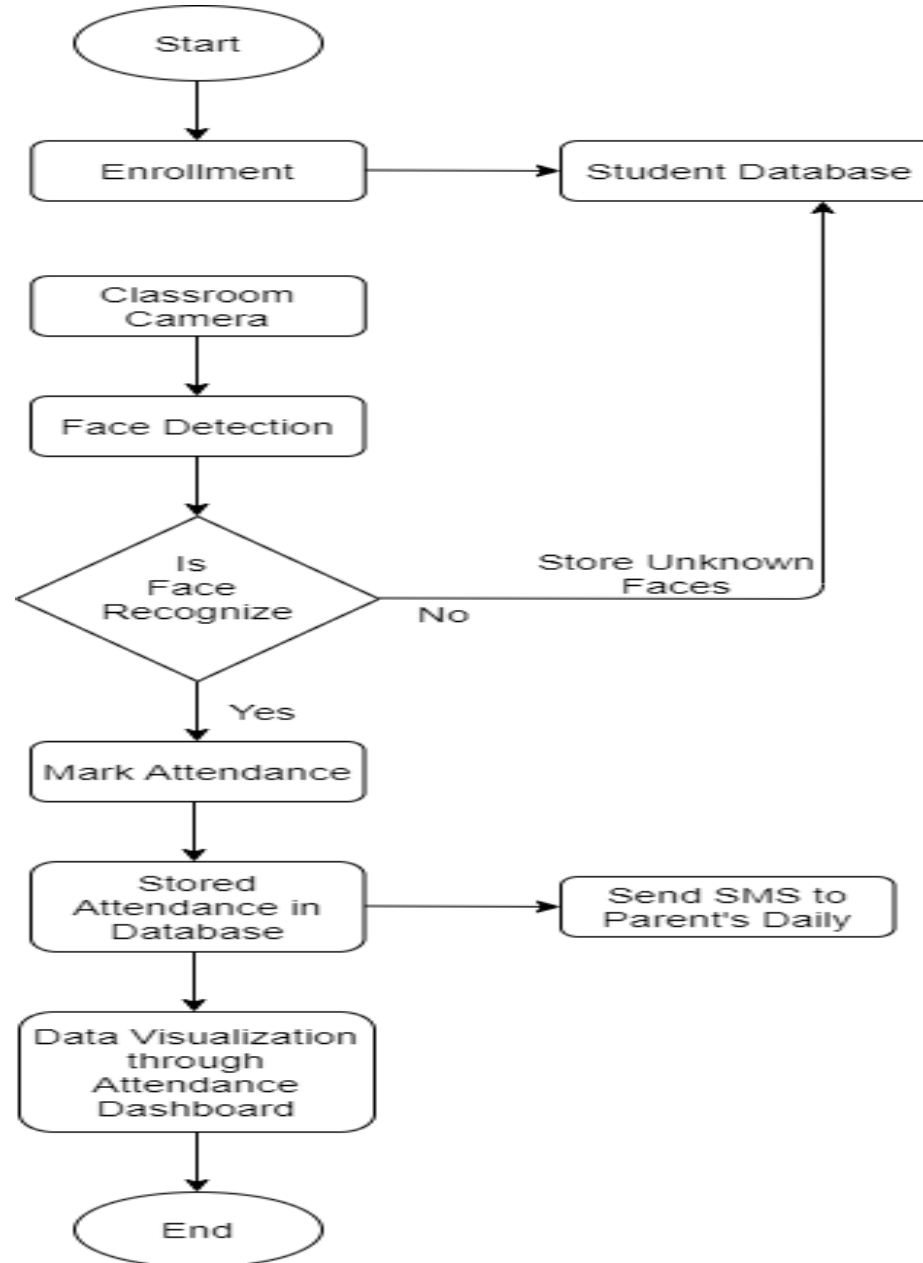
Flowchart

Prototype Design Demonstration

- ## Admin login:
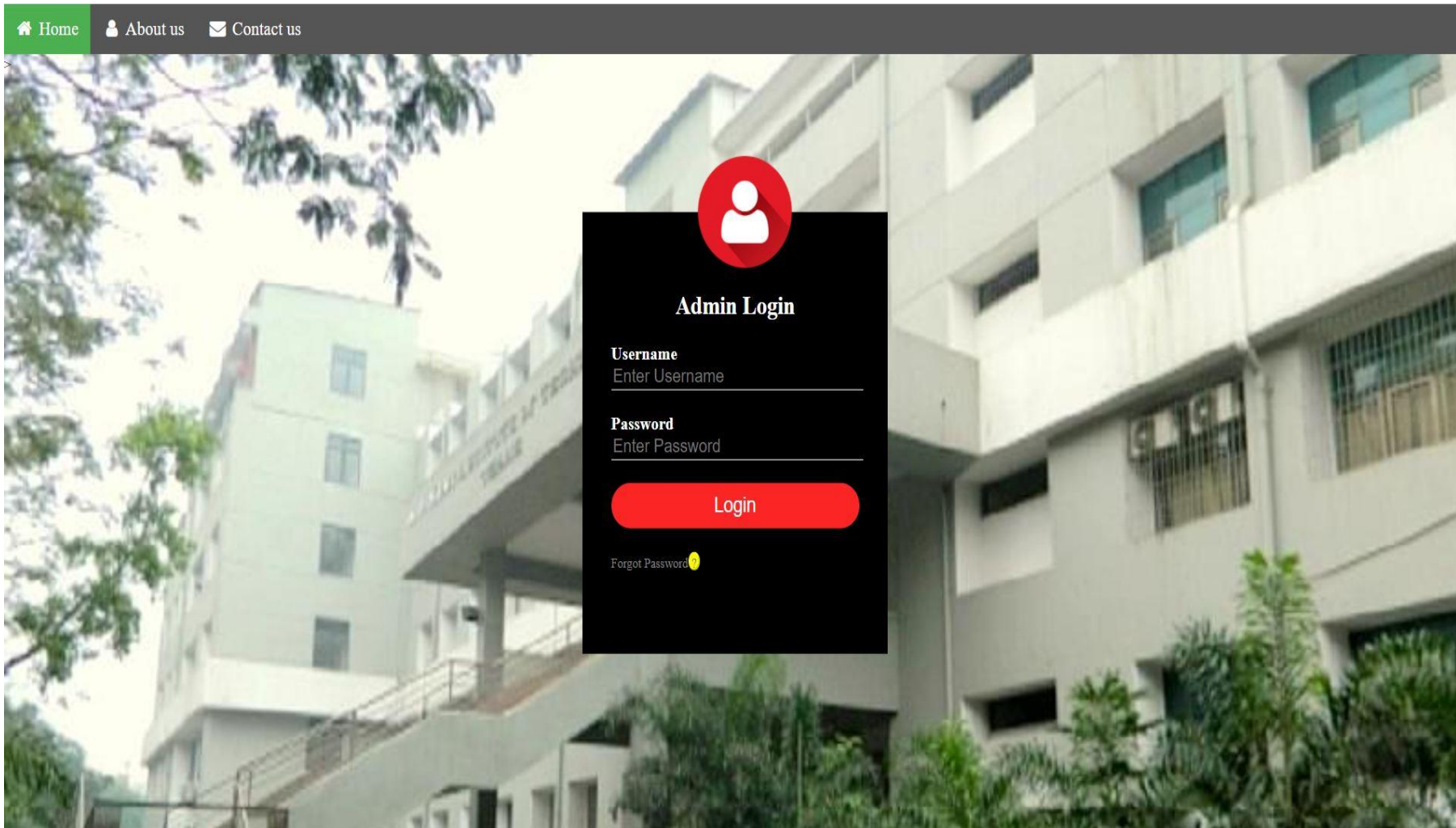
Prototype Design Demonstration

- **Parent's login:**
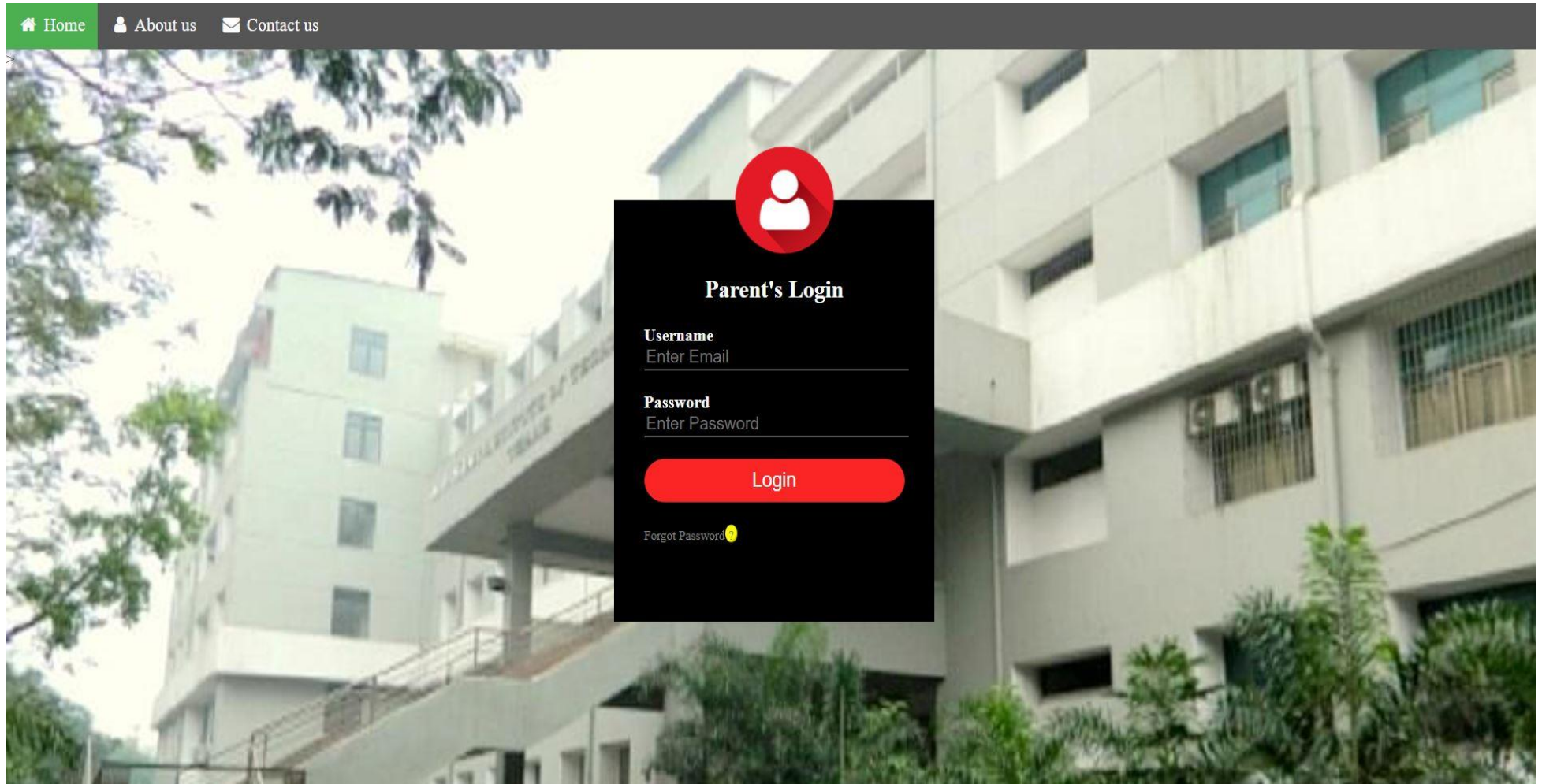
Prototype Design Demonstration

- **Student login:**
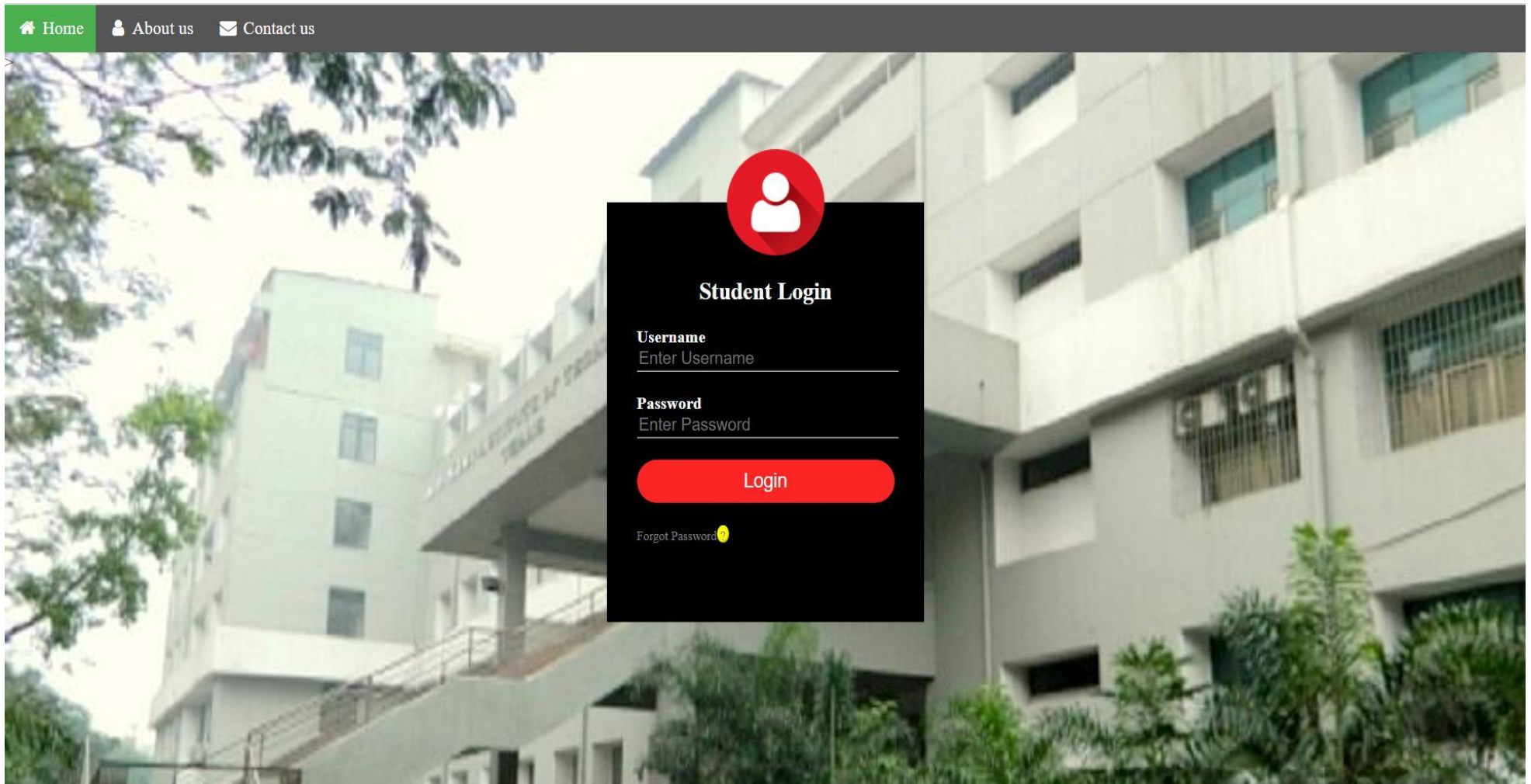
Prototype Design Demonstration

- **Forgot password:**
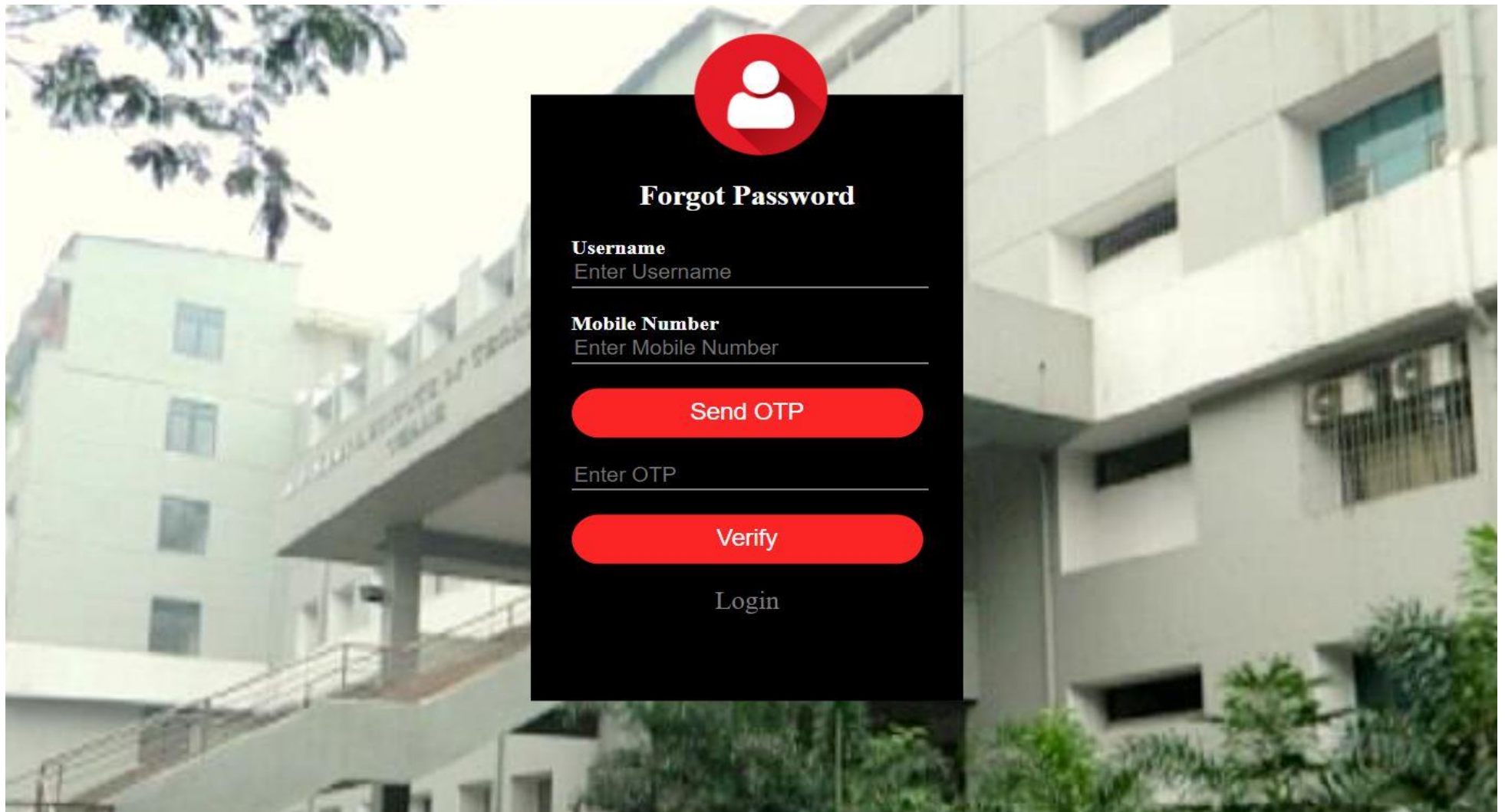
Prototype Design Demonstration

- **New password:**
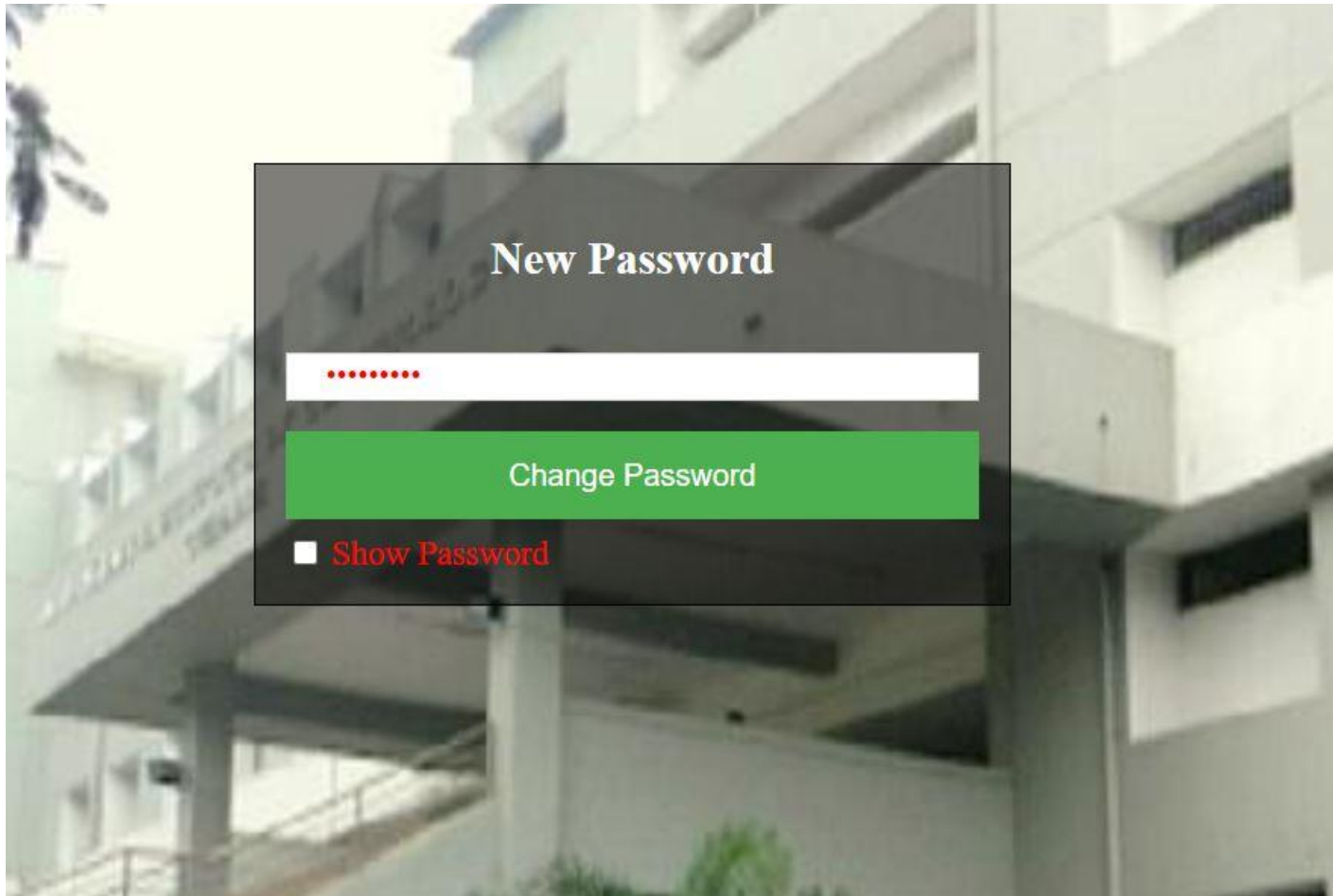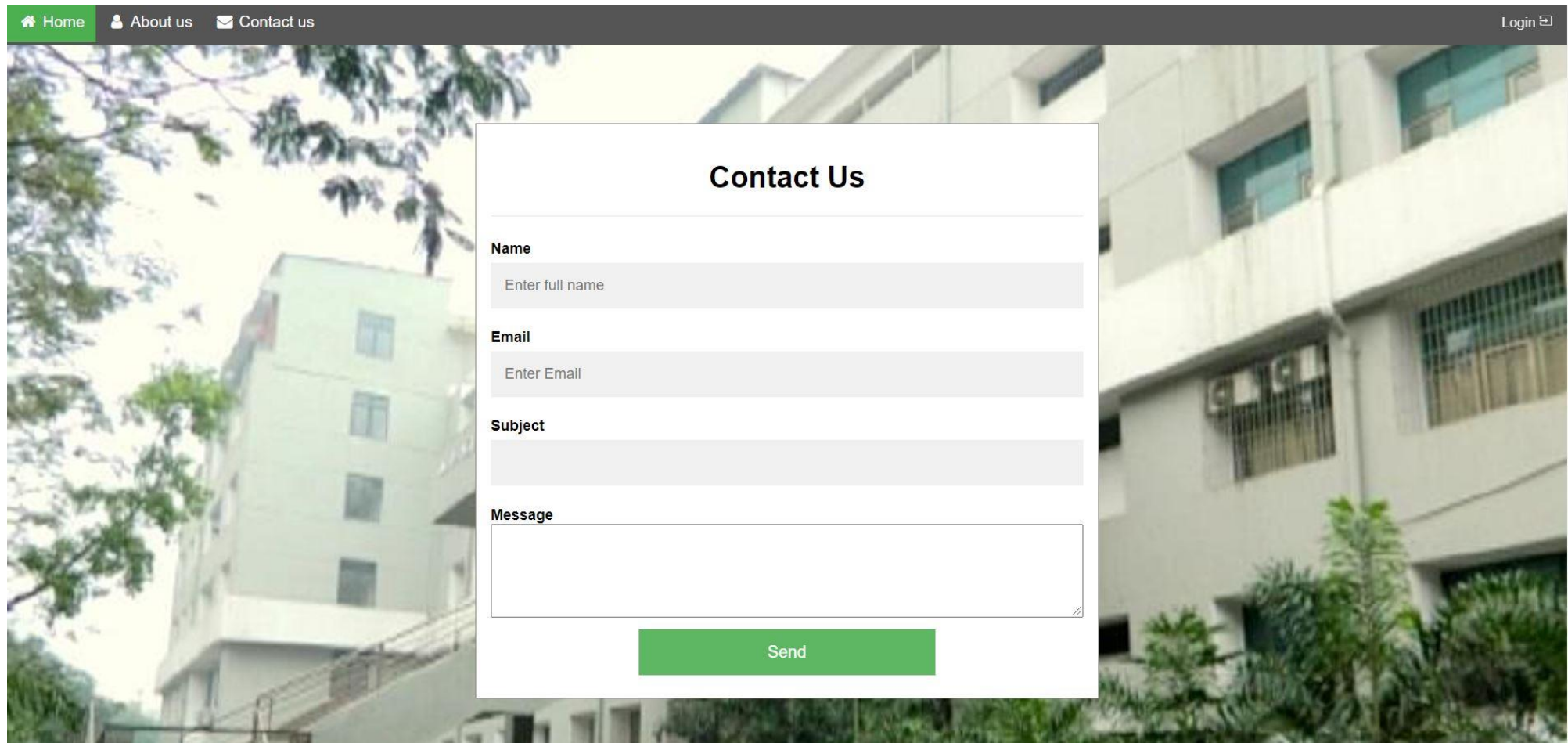
Prototype Design Demonstration

- ## About us:
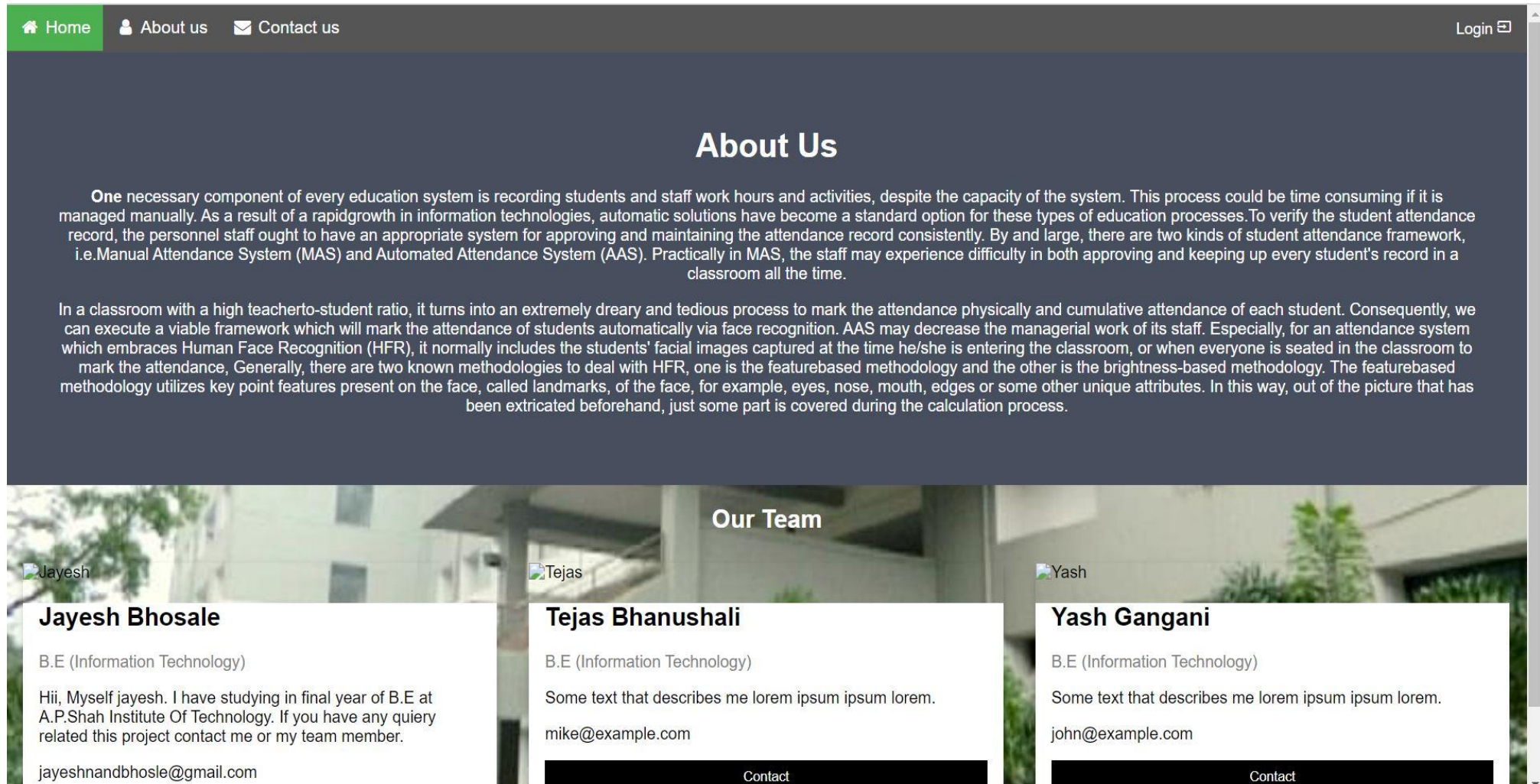
Prototype Design Demonstration

- **Contact us:**

Prototype Design Demonstration

- **Student Registration:**

Prototype Design Demonstration

- **Student Registration:**

Prototype Design Demonstration

- **Parent's Registration:**
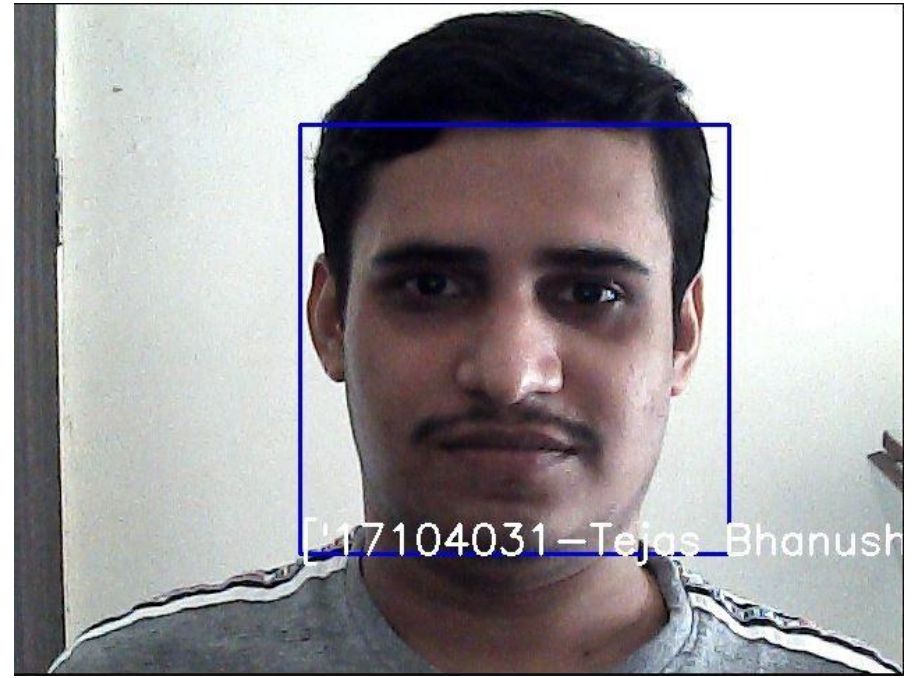
Prototype Design Demonstration

- **Schedule Lectures:**

Prototype Design Demonstration
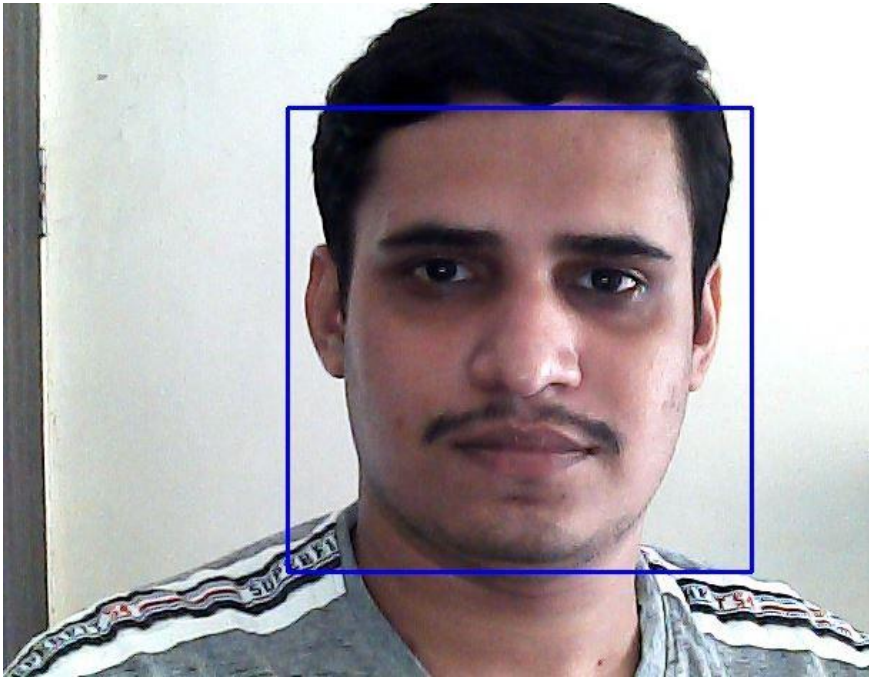
Detect face

Recognize face

Plan of Paper Publication

6th International Conference for Converegence in Technology 2021

Thank You...!!