**Website-based Facial Recognition Attendance System**

**Introduction:**

With the rapid development in the field of image processing, facial recognition is a technique of biometric recognition used for different verification purposes. Facial recognition is one of the successful techniques of biometric recognition by the help of image analysis and processing.

**Motivation:**

Whenever a lecture starts, the lecturer delays the lecture to record students’ attendance. This is a lengthy process and wastes lots of time for the lecturer and the students. With huge number of students, it also causes a lot of disturbance and interruption when an exam is held. Especially, when a huge number of students are enrolled in a course, it results into loss of time and effort for the lecturer. The lecturer has to do everything manually from counting the attendance to uploading it in the college server.

By the help of this student friendly solution, student can check their attendance in the website and teachers can also save their time and continue their lectures without any disturbances.

**Skills used:**

HTML, CSS, PHP, SQL, Python,

**Steps:**

1. Make a Web-page using HTML and CSS. Publish it.

Code:

<!DOCTYPE html>    <!-- Information to the browser about the document-->

<html lang="en">   <!-- English language -->

<head>

    <meta charset="UTF-8">   <!-- UTF-8 Encryption -->

    <meta name="viewport" content="width=device-width, initial-scale=1.0">    <!-- viewport= viisble area for all devices, initial scale= zoom level of the page -->

    <title>Attendance System</title>

    <style>

        form {

            padding: 50px;           /\* spaces around the elements content inside defined borders \*/

            width: 250px;            /\* defines the width of the form \*/

        }

        img {

            width: 250px;

        }

        .form-center {

            display:flex;           /\* flexible length of the items \*/

            justify-content: center;    /\* content in the centre \*/

            text-align: center;

        }

    </style>

</head>

<body>

    <div class="form-center">

        <form>

            <img src="https://upload.wikimedia.org/wikipedia/en/c/c5/Siksha\_%E2%80%98O%E2%80%99\_Anusandhan.png" alt="SOA">   <!-- Image from the web -->

            <p>

                <label><b>Registration No:</b><br><input type="number"></label>

            </p>

            <p>

                <label><b>Password : </b><br><input type="password"></label>

            </p>

            <p>

                <button type="submit">Submit</button>  <!-- submit button for the excel sheet -->

            </p>

            </form>

        </div>

</body>

</html>

1. Make a MySQL database.
2. Create a server for the database using phpMyAdmin.
3. Connect the Web page to a SQL database using PHP.
4. Make a table for managing the database of students.
5. Connect Python with the database.
6. Test facial recognition of the system using Python.
7. Check the database of the system by facial recognition of sample images.
8. Uploading the time-table of the lectures.
9. Updating the database ‘ON’ for 1st 10 mins of each lecture so that late comers will not get any attendance.
10. Finally check the output of the hardware system.