# PROJECT PROGRESS: SUMMARY

In comparison to the suggested technique, existing methods to record student presence need more time. The proposed face-recognition attendance model makes use of LBP.

One of the most effective and dependable texture descriptor approaches is local binary pattern. Due to its resistance to monotonic gray-scale change, the Local Binary Pattern Histogram (LBPH) operator's property is the most significant in real-world applications. With the use of the LBPH approach, both side and front faces may be identified, and local details can be represented in the photographs. In a variety of situations and lighting, the LBPH approach will perform better than other methods like eigen faces and Fisher faces. In the eigen faces and fisher faces methods, the dataset is viewed as a whole, whereas in the LBPH technique, each individual image is independently examined.

A block of three-by-three pixels is subjected to the LBP (Local Binary Pattern) operator. The middle pixel, which is referred to as the center pixel, is one of a total of nine pixels. The LBP algorithm compares one center (middle) pixel with eight neighboring pixels. Following this recognition procedure, LBPH uses Equation (1) to produce a binary integer.

The Automated Smart Attendance System (ASAS) is made up of four components, each of which has a unique role for recording student attendance.

- Module for Image accession
- Module for feature extraction
- Module for training datasets
- Module for classification and recognition

ALGORITHM

Process

- Step 1: (Take image) When a student enrolls, a video is taken with their name and roll number, and every new student's information is recorded in a student table.
- Step 2: (Update database) 200 pictures are taken from the recorded video and put in the dataset folder.

- Step 3: (Train images) The LBP algorithm is used to train the model while using the images that are saved in the dataset.
- Step 4: (LBP Algorithm) When the LBP operator is applied to each matrix, the outcome is a decimal number for each block.

From this model we can recognize the faces of students and can mark their attendance automatically in real time without human intrusion. Therefore, in a regulated environment, the proposed method enables identification and recognition of faces. LBPH (Local Binary Pattern Histogram) for facial recognition and detection in a particular area within the surveillance camera. They also have reliable outcomes for pose variance, and illumination after obtaining good results from different experimental studies of this technique.