

Face Recognition based Attendance Management System

Pranav Shinde¹, Kartik Patel², Lokesh Kumawat³, Sarthak Kamthe⁴, Rashmi Tundalwar⁵

Department of School of Computing¹⁻⁵

MIT ADT University Pune, India

¹pranavshinde2703@gmail.com; ²kartikpatel1806@gmail.com; ³lokeshkumawatmbs@gmail.com;

⁴sarthakkamthe5803@gmail.com; ⁵rashmi.tuptewar@mituniversity.edu.in

Abstract: *In this age of technology, face recognition system is crucial in nearly every industry. Face recognition is among the widely applied biometrics. It can be utilized for security, authentication, identification, and has numerous more benefits. Although it has low accuracy compared to iris recognition and fingerprint recognition, it is widely used because of its contactless and non-invasive process. Also, face recognition system can be utilized for attendance marking in colleges, schools, offices, etc. This system will develop a class attendance system which utilizes the principle of face recognition because manual attendance system currently in use is time consuming and it is inconvenient to maintain. And there can be possibilities of proxy attendance. Therefore, the demand for this system rises. This system has four phases- database creation, face detection, face recognition, updation of attendance. Database is developed through the images of the students during class time. Face detection and recognition is done through Haar-Cascade classifier and Local Binary Pattern Histogram algorithm respectively. Faces are detected and recognized from the live streaming video of the class. Attendance will be sent to the concerned faculty by mail at the end of the session.*

Keywords: Face Detection; Face Recognition; Haar- Cascade classifier; Local Binary Pattern Histogram; attendance system

