

# Smart Facial Attendance System

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**Abstract:** *Managing the attendance in school has proven to be a great burden to teachers and pupils. As of late, automatic attendance systems have been introduced to help solve these issues by creating a more interactive and computerized environment in order to allow teachers to better track the performance of their students. The Open-Source Technology Center (OTC) program is an application that was created using the Qt framework. This program runs on Linux and utilizes the OpenCV library in order to read the faces of students when they enter the classroom and mark their presence on a control panel interface, which is then also streamed through a local server through UDP protocol. The system uses MVC architecture, allowing for easy separation between data, models and controllers. The model consisting of face detection is developed using dlib libraries which allows for more advanced modeling.*

**Keywords:** Attendance System, Automated Attendance, Image Processing, Face Detection, Feature Matching, Face Recognition, etc.

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