

ABSTRACT

At this time, presence system that use RFID is really helpful for the effectiveness students and lectures, but there are still some problem like losing an RFID card, and cheating like “absenteeism”. Based on these problems, a system using multiple face recognition was made that can determine whether student is in class or not. Overall, the system is divide into three stages, Data gathering, face recognition, and sending messages via telegram. The system was built using raspberry pi as microprocessor, camera as image capture, OpenCV as library for image processing, infrared proximity censor for detection object, and telegram BOT as message sender. The way this system works is, the students register face on system and give an ID for each face, after taking facial data, trainer on system will create a file with format .yml for face recognition using OpenCV. Then in the face recognition process, faces captured by the camera in real time will be matched with the data that has been taken before, and then system will send a message to telegram. Based on testing that has been done, the system can detect faces that match the data stored at a distance of almost 3 meters, depending of light in the room, fashion style used, and the amount of data retrieval on the system.

Keywords: Multiple Face Recognition, OpenCV, Raspberry Pi, Telegram