ABSTRACT

Security issues are public issues that need to be addressed. Theft often occurs if the security system of an area is weak, therefore the security system must be improved to suppress crime cases. Coupled with the state of covid-19 cases that are still hitting Indonesia where we have to limit the number of users in a closed room. In this project, a security system was built that functions to find out all the information that can be known and also improve social distancing in a room.

To improve the security system of the laboratory room, a tool was designed using a face recognition system using ESP32-CAM to display names that use face recognition, as well as create a website that displays a database for registration purposes and monitors who are or in and out of the room. This system uses one face recognition, namely outdoors.

From the results of the design of the room security system, the test results of the facial detection accuracy test were obtained, which was 90%. Of the 10 tests, one data went undetected. Data that is not detected is due to the position of the user that does not match the registered data, so the system reads the detection object is the data that has not been registered. Based on the results of the delay test, the average delivery delay was 3,066. From these results, it can be concluded that the system can send data without any data loss and delays that are not too long so that the system can send data properly.

Keywords: Security, Face Recognition, ESP32-CAM, Website.