

ABSTRACT

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NODEMCU-BASED FINGERPRINT ATTENDANCE SYSTEM FOR HIGH SCHOOL STUDENTS INTEGRATED WITH WHATSAPP AND DATA MONITORING USING GOOGLE SPREADSHEET

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Students must be responsible for themselves regarding the time they enter school. An effort to increase the sense of discipline of each student is by having an attendance system at school. The attendance system that is usually available in schools is still manual and teachers have to take attendance for each student using an attendance sheet. Cooperation is needed between parents, students, and teachers at school. Efforts to discourage students from committing cheating and reasons for helping each other who are late for school. This research aims to design and create an attendance system fingerprint using NodeMCU-integrated WhatsApp and Google Spreadsheet. The research method used is designing tools, testing tools, and implementing an attendance system fingerprint using sensor fingerprint AS680 for input or reading and identifying fingerprints. This system stores identified fingerprints in the form of an ID which will be processed by NodeMCU and forwards the results of the process to Google Spreadsheet. There are two Google Spreadsheet files, the first of which is to accommodate attendance data in the form of the results of the NodeMCU process which contains the name, UID, *date*, and time. The second Google Spreadsheet file is for attendance data which is then forwarded to WhatsApp using WhatsApp *Gateway*. Based on the results of designing and testing the attendance system, it can be concluded that the attendance system fingerprint NodeMCU-based high school students integrated WhatsApp and data monitoring using Google Spreadsheet was successfully created and can run well. There was a failure percentage of 4%. A success percentage of 96% was obtained from experiments by 20 students who were registered in a database This is done by scanning your fingerprints 10 times. Failures in the percentage of failures were caused by wet or damp hands, and slippery hands after handling motor oil.

Bibliography (2018-2023)