ABSTRACT

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DEVELOPMENT OF REALTIME FACE RECOGNITION PRESENCE APPLICATIONS USING HAAR CASCADE CLASSIFIER AND LBPH METHODS OPENCV LIBRARY AND PYTHON PROGRAMMING LANGUAGE.

The most common attendance method today is the manual method. Namely by signing the attendance sheet which is usually given by the lecturer. This manual method has drawbacks, including the length of time it takes to fill in attendance by students, not knowing what time students arrived, student affairs must also digitize these absences and not to mention the existence of falsification in attendance sheets such as students who are not in but leave their absences with other students who enter. In the current era of globalization, advances in technology and information have brought major changes in human life. Like Industry 4.0 using the latest technologies such as IoT, big data, AI, robotics, and cloud computing. In Information Technology, the implementation of AI, especially Face Recognition, can improve the efficiency of student attendance. For this reason, this application uses Face Recognition which is used for student and lecturer attendance. In this study, a total of 1500 datasets consisting of 15 people each had 100 facial images taken. The method used in this study is the Haar Cascade Classifier for face detection because it can detect faces quickly and in real time. Then, LBPH is for facial recognition and Sql Lite 3 is also used to store attendance history. In this study, tests were carried out to determine the level of confidence and accuracy in the application, for the level of confidence an average value was obtained of 85.5% and for the accuracy value using the Binary Classification, an accuracy of 86.67% was obtained.

Daftar Pustaka (2001 – 2022)