

## ***ABSTRACT***

*SD Negeri 1 Ngemplak is a public elementary school with A accreditation and 94 students. Attendance recording at SD Negeri 1 Ngemplak is still done by writing in a book which causes problems such as errors in writing attendance, lack of efficiency in recording and calculating student attendance. The design of the attendance system aims to manage attendance data, improve recording efficiency and simplify the process of creating attendance recapitulation reports at SD Negeri 1 Ngemplak. The attendance system built uses the CNN (Convolutional Neural Network) method to perform facial recognition in the student attendance process. The research stages include problem identification, data collection, system design, system implementation and system testing. The results of the reliability test show that the attendance system has a good level of accuracy and precision in recognizing student faces at a distance of 40 cm. The use of the attendance system can speed up the attendance process by up to 49.68% compared to recording in an attendance book. Meanwhile, the results of the functionality test show that 19 out of 20 scenarios were successfully carried out with a success rate of 95%. Thus, facial recognition-based attendance can improve efficiency and ease of attendance management at Ngemplak 1 Public Elementary School.*

***Keywords:*** Attendance, Facial Recognition, CNN



