

**IMPLEMENTATION OF THE EMPLOYEE  
PRESENCE APPLICATION USING MOBILE-  
BASED FACE RECOGNITION AND GPS  
(Case Study: Ngluwar Muhammadiyah Elementary  
School)**

**TONNY PRASETYO**

*Informatics Study Program, Faculty of Science &  
Technology*

*University of Technology Yogyakarta*

*Jl. Ringroad Utara Jombor Sleman*

*YogyakartaE-mail :*

*[tonyprasetyo16@gmail.com](mailto:tonyprasetyo16@gmail.com)*

**ABSTRACT**

*The employee attendance system at SD Muhammadiyah Ngluwar is currently still carried out manually to carry out attendance by writing a signature in the attendance book and saving the data in the book. This manual system has several disadvantages, namely queuing for attendance, forgetting to make attendance and attendance data is easily lost. The method that can be used for a presence system is CNN (Convulsion Neural Network) with mobile technology, face recognition and GPS. The tools used in developing this system are Android Studio, Visual Studio Code, XAMPP and Google Colaboratory. The programming languages used are Kotlin, PHP, JavaScript and Python. Having a mobile-based employee attendance system will make attendance activities at SD Muhammadiyah Ngluwar easier. Attendance data will also be stored in a database, thereby minimizing data loss and making it safer.*

*Keywords: Presence system, Convulsional Neural Network, face recognition, database, mobile.*