# ABSTRACT

*The home security system is one of the things that need to be considered to accurately identify the people who enter the house. Conventional home security systems that use a key to open the door lower the home security level. Some of the factors that make locks low in home security level are keys that are easily handed over, easy to duplicate or the possibility of keys being lost. Various studies have been carried out to create a better home security system by testing various facial recognition methods, resulting in high recognition accuracy.*

*In this study, face detection was carried out using the Haar Cascade method and facial recognition using the K Nearest Neighbor Classifier method. The familiar face is then sent to the user's telegram application.*

*The result of designing a facial recognition system for a home security system using a k-nearest neighbor classifier and internet of things is that the accuracy rate is more than 90% in 6 classes. The concept of the internet of things can be applied to monitoring and controlling systems on the telegram application on users' smartphones.*

**Keywords**: *Home Security System, Door Access System, Face Recognition, KNN Classifier, IoT, Telegram Bot.*