

## ABSTRACT

*At this time the access control system is one of the important aspects in life. Access control system Can facilitate daily activities. With advances in technology, conventional access control systems are being developed into electronic-based access control systems. Conventional access control systems such as manual key door are now being developed with wireless door key that can be controlled from an application.*

*In this final project is given solution to access control at home. This system utilizes an android based web service with case study of home door. The system can authenticate based on registered members on database, user authentication based on user position distance with a maximum distance of 200 meters to home position, remote control by push button on app, view access history, change access clock to limit Predefined access times, add new members and update member data.*

*Based on this final project, the system can perform remote control with response 0.294 ~ 0.657 seconds, can provide information based on the user's GPS position, the average response time 7.0425 seconds with the reliability of authentication applications 82.352% within a radius of 200 meters and 100% for a distance of 191 metres and 0.220564% for google maps error.*

Keywords: Access Control System, Web service, Android, GPS.