# ABSTRACT

Vicky/ 52150091/ 2019/ Parking System Application Using Android-Based Face Recognition with React Native Framework/ Elis Sondang D.T., S. Kom., M.M., M. Kom.

The growth of globalization era is increasing the number of technologies and services that support human daily life. One of the services is about the existing parking system. Parking systems nowadays, are mostly conventional without prioritizing the right security and procedure, it’s also hard to make sure that someone is the real owner of a vehicle.

One of the technologies is Artificial Intelligence (AI)*.* Inside this aspect, there is an applied technology of AI, which is the face recognition that can improve security and differentiate someone from others. There are many ways to implement this technology, one of them is by using Application Programming Interface (API) which is distributed by Kairos*.* Besides that, this application development will also use React Native framework.

This research will be conducted with field research method with qualitative approach and also Personal Extreme Programming (PXP) system development method. The data gathering will be conducted by directly observing and structured interview to the subject that knows about parking system of the related area. Besides that, there is also literature review from books, journal, and websites that could be used as references about parking, face recognition, Kairos, etc.

The design of the system will cover system architecture, flowchart, and also UML diagram to be able to describe the program more clearly. The result of this research is a parking application with face recognition feature, and discussion about the existing parking system and accuracy rate of the used face recognition.

The resulted parking system application is intended to give solution for the existing parking problems. Hopefully this application could overcome the security problem, owner detection, and the conventional parking procedure. This result will make the service provider be more comfortable and also give sense of safety for the vehicle owners.

**Keywords:** parking system, face recognition, React Native, Kairos Library, Application Programming Interface.