ABSTRACT

Nowadays mobile-based applications have been widely used in daily life because of the ease with which smartphone devices are built and can be downloaded by users via smartphones. Along with this, many applications are designed to make it easier for us to carry out daily activities. For example, the QR Code is used to store data, URL links, and so on.

But now the use of the QR Code is still rarely used by the community, so more research is needed for the development of this QR Code application so that it can be a solution for the community, especially the seminary, the seminar. Especially in the process of event activities on campus to replace the ticket exchange system with a manual that takes longer and is less efficient.

In this research designed and implemented an Android-based QR Code application to facilitate an activity, such as the QR Code for tickets to an event to simplify the ticket verification process and data collection so that the event can run better, not drain time, and effort. With this research, it is expected that the Android-based QR Code application can produce a system that is useful to simplify the ticket verification process starting from authentication, generate QR Code, scan QR Code, and store all data on the Google Firebase *database.*

From the results of the research that has been done, the QR Code application can run well and the system has no errors. Whether it's system authentication, scan in conditions of bright and dark, scan at distances up to 50 cm, generate QR Code, and store all data in the Google Firebase *database so that the application can be used for ticketing seminar events.*

Keywords: QR Code,* android*, verification, authentication, generate, scan.