

ABSTRACT

Currently, in public toilets, the mechanism for monitoring and replacing toilet paper is still done manually, so it takes time and effort, therefore there are often delays in filling toilet paper. The next problem is the calculation of costs incurred per month which is still doing calculations manually and often data loss and calculation errors occur when filling tissues. From these problems, we need an application that makes it easier for toilet staff to monitor the condition of the tissue in the toilet without having to check one by one in the toilet.

In this final project, a smart network application is designed that focuses on online monitoring and is integrated into an automatic tissue tool which is assisted by a cost estimation feature to display monthly cost details. This application can be used by two users on the admin side and the toilet attendant.

The output of this smart tissue application for toilet attendants can monitor tissue in different places and get an estimated monthly cost. In testing the integration of applications and tools such as, the response from the application and the data sent by the tool is as expected. Applications designed using the React Native programming language and firebase database get the results of the minimum operating system that can be installed, namely Android 5.0 API 21 Lollipop version, in testing the application's functionality as expected. The calculated data is according to manual testing and the application can monitor each different tool. In testing the application response waiting time which takes a long time, namely when opening the application with a time of 5 seconds and fast activity displaying an application login with an application response waiting time of 0.005 seconds.

Keywords: *Smart Tissue, Tissue Automatic, Monitoring, React Native, Firebase, Visual Studio Code.*