

## ABSTRACT

The enthusiasm of the public and students in designing furniture for rooms in the house including rooms, especially for students who live in rented or boarding houses, is not an easy and fast activity. Many people or students still find it difficult to determine the furniture design for a room. In terms of room layout, designers still use conventional methods or in ways such as guessing whether the required furniture will take up space for other items or not, especially if the furniture we already bought. In this modernization era, people are required to carry out an activity efficiently so that they can save time to be able to do other activities. Therefore, the problem that arises when someone becomes a designer is that they are required to work efficiently. The purpose of this study is to build a mobile Augmented Reality (android) based system that can simplify and save time in terms of arranging furniture for rented houses or boarding rooms. In conducting this research, the system was built using the waterfall pressman design method. This application runs on an android based smartphone. This method is used as a reference for the process by which the system will process data input. The design of this application uses MonoDevelop / notepad ++ and Unity with the use of the Augmented Reality Vuforia SDK. The result of this research is the production of an Android-based mobile platform application, so that this application can be used flexibly, easily, and can save time by designers or users who want to decorate and organize their space more efficiently.

Keywords: *furniture*, design interior, *Augmented Reality*, android, Unity, Vuforia.