

ABSTRACT

Occupancy has various meanings. The meaning of Occupancy is ownership, residential area, or placement of a land or region. In lecture activities, the space in a building used has a different occupancy. So that every academic community must know whether the room to be used is sufficient or exceeds the occupancy of the room. With the development of technology at this time can be applied to the technology of Augmented Reality (AR) that combines virtual objects and generated by computers with objects that are around the environment in real time, so that users can interact with cyberspace and get new information. The existence of AR is expected to facilitate the academic community to get room occupancy information in real time.

With this problem, an application is needed to inform the academic community on smartphones to provide room occupancy information to the academic community, especially at the Tokong Nanas Building and Selaru Building at Telkom University. Making applications using Unity software by using the help of Vuforia SDK as a scanner so that users can interact. The 3-dimensional object are created using Blender software, which is an Open Source application and Adobe Illustrator to design an User Interface application. For databases Firebase Real Time Database is used which can store room capacity data in real time.

From the results of testing carried out based on the optimal distance of the camera to the marker is 30cm, and the delay in sending data from the smallest real time database is 0 seconds and based on subjective testing results from the academic community, it is obtained from a scale of 1 to 5 get good category results with an attractive appearance and 100% feature function runs smoothly. So it can be concluded that this occupational visualization application can be used during the lecture period.

Keyword : occupany, augmented reality, real time database