ABSTRACT

DEVELOPMENT AUGMENTED REALITY APPLICATION IN KAILASA DIENG MUSEUM COLLECTION USING MARKER BASED TRACKING

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Museum is an institution that functions to protect, develop, utilize collections, and communicate to the public. Kailasa Museum has 100 groups of statues scattered in various rooms, the collection of statues is equipped with a QR Code and information boards, but not all statues have a QR Code and information boards. The use of digital technology to improve the performance of the Kailasa Museum is by utilizing AR technology as the purpose of alternative media that provides various information related to the collection of objects in the Museum. Augmented Reality technology has several methods, one of which is Marker based tracking. Marker-based tracking is a special marker with a certain pattern so that when the camera detects a marker, a visual object will be displayed. The marker-based tracking method utilizes markers with certain shapes and colors. This research uses the Prototype system development method. The advantage of the prototype method is that the system is customized, meaning that the software is created based on the request and needs (situation or condition) of the user, thereby reducing the risk of repairs carried out at the end of the stage which results in the repair process being repeated from the initial stage so that it requires more time and cost. The first test carried out on this application is to test the marker by testing the distance, angle and light intensity aspects in the marker scanning process in this application resulting in 100% success. The second test is the functional blackbox which is carried out on the AREA KAMUS (Augmented Reality Kailasa Museum) application, obtaining a value of 100% or all of the activities being tested and it can be concluded that all features can run well based on their function.

Keyword : Augmented Reality, Marker Base Tracking, Museum, Prototype, Blackbox Testing