ABSTRACT

Instagram is the most popular social media and is in great demand by various groups of people because it has many features, one of which is the Instagram filter. Instagram filters can detect the user's face without the need to use amarker special image with detection systemmarkerless owned by Spark AR Studio. To display a virtual object using the methodmarkerless influenced by several indicators such as distance, angle, light intensity, occlusion, and detection time duration. However, it is not yet known in detail the level of detection accuracy of these indicator parameters, so it is necessary to have a performance test for the resulting application. In this research, a performance test will be carried out on applications produced by Spark AR Studio, aiming to find the level of accuracy of detection of applications produced in displaying virtual objects by looking at the parameters that influence them. The expected results are obtaining the right distance and angle, knowing the duration of time needed by the application to bring up virtual objects when the user's face moves, knowing the ideal light intensity conditions when indoors and outdoors, and knowing whethermarker can still be detected when the user's condition uses additional accessories such as glasses, hats, or masks.

Keyword *: Augmented Reality, Filter Instagram, Markerless Face Tracking, Spark AR Studio*