MOBILE BASED AUGMENTED REALITY APPLICATION PROGRAMMING INTERFACE FOR INTERACTIVE LEARNING ABOUT MEDICINAL PLANTS

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ABSTRACT

Augmented Reality is a technological combination of real objects and virtual objects simultaneously. Augmented Reality refers to research using computers which aims to create a knowledge system that makes human work easier. The problem faced is the lack of public knowledge about medicinal plants and the difficulty in studying them. This research aims to develop an Augmented Reality application that can help people recognize and understand the types of home medicinal plants and their benefits using more modern technology. This application uses the Marker Based Tracking method in designing it, by retrieving data via API and testing using Black Box Testing, distance testing, and light intensity testing. The results of testing with BlackBox Testing are applications that are capable of displaying sound, text and 3D objects, and can be run on Android smartphones. For the distance test, the results of the 3D object can be read if the distance is between 5-30 cm at an angle of 900. For the light intensity test results, if the room brightness is in the range of 10% - 100%, the marker can be read clearly. It is hoped that this application can provide easy, efficient and interesting assistance for the public in studying and utilizing home medicinal plants.

Keywords: Medicinal Plants, Augmented Reality, Markerbased, API, Blackbox.