ABSTRACT

THE DEVELOPMENT OF AUGMENTED REALITY-BASED MELON PLANT GROWTH APPLICATION USING MARKER-BASED TRACKING METHOD

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Young farmer groups, also known as millennial farmers, are currently interested in developing melon plants, but there is still a lack of interactive learning media on melons. Augmented reality technology is created as a medium to increase farmers' interest in learning visually attractive. The method used for this research was the marker-based tracking method. With this method, the interactivity of 3D visual objects of melon plants can be realized. The multimedia system development life cycle consisted of stages including concept, design, material collecting, assembly, and testing. To operate this application, a specific marker was needed to display objects on melons. Based on the result of testing the application utilization of augmented reality technology, the application can run well, namely displaying 3D objects on melons visually. However, in terms of functionality and purpose, the application is not yet by expectations in delivering information about plants to farmers. Further application development is still needed, such as adding features like sound, text, and motion graphics to make it more attractive in delivering information.

Keywords: Melon, Augmented Reality, Multimedia Development Life Cycle, Marker-Based Tracking.