

DEVELOPMENT OF AN ANDROID-BASED AUGMENTED REALITY INTERACTIVE LEARNING APPLICATION INTRODUCTION TO HUMAN BODY ANATOMY

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ABSTRACT

Augmented reality (AR) provides intriguing opportunities to enhance the learning experience by merging the real world with interactive virtual elements. This research aims to develop an interactive learning application using augmented reality technology to introduce human body anatomy in a more engaging manner. The development method follows the waterfall system with stages of needs analysis, design, implementation, and testing. The researcher employs UML models, flowcharts, and wireframes in the system analysis and design. The application is built on the Unity platform with AR plugins such as Vuforia and ARCore. The AR model utilized in this development involves marker-based tracking and markerless tracking. Testing is conducted to measure the success level of the application, employing black box testing methods to ensure the application's usability without issues. The outcome of this research is an Android-based human body anatomy learning application utilizing augmented reality technology, with the expectation that it will facilitate a better understanding of the human anatomy system.

Keyword: Augmented Reality; Marker-based; Markerless; Education; Anatomy.