IMPLEMENTATION OF AUGMENTED REALITY MOBILE-BASED SEARCH FOR BOOK CATEGORIES OF WATES REGIONAL LIBRARY SHELVES

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ABSTRACT

This research aims to build an Augmented reality application that can display book category information and short descriptions in the form of 3D objects. When borrowing books from the library, new visitors often have difficulty finding the book they are looking for, which has an impact on the length of the book search process. This research was built with structured stages starting from problem identification to testing. This AR application will later be installed on smartphones. This system can later help library members find books to borrow or read by directing their smartphones to book categories on the shelves. The findings from this research show that the LibraryAR application was successfully built and tested to determine the quality of the markers using Vuforia, which shows that the markers have a high rating value. Apart from that, tests were also carried out to determine the optimal distance for marker detection, where all markers were successfully detected up to a distance of 50 cm. Based on these results, it shows that the LibraryAR application can be used to simplify and speed up the book search process.

Keywords: *Smartphone, Augmented reality, Technology, 3D, Vuforia.*