

ABSTRACT

**DESIGN AND DEVELOP AUGMENTED REALITY APPLICATION AS A CIPUTUT RIVER
TUBING TOURISM INFORMATION MEDIA USING MARKER BASED TRACKING
METHOD
(CASE STUDY: SERAYU LARANGAN VILLAGE PURBALINGGA)**

Oleh
Havid Arifin
20102157

Village tourism involves active community participation to maintain and improve the quality of tourism. Serayu Larangan Village has a tourist attraction, Ciputut River Tubing, but it has not been widely exposed digitally, making it difficult for tourists from various regions to find. This limited information reduces the attractiveness and experience of tourists. To overcome this, an Augmented Reality application was developed to increase user interaction with attractions and provide useful information. This application uses marker-based tracking method, where physical images are scanned to display 3D objects and related information. The Agile Development method is applied in the development of this application, allowing rapid adaptation to changing needs and user feedback during the development process. The results of system testing conducted using the blackbox testing method on 24 test scenarios show that all features in the application system can run well. From distance testing, markers can be detected well at a distance of 10-30 cm with angular inclinations of 10°, 30°, 45°, 60° and 90°. Meanwhile, the System Usability Scale (SUS) test results show an average result of 81.58% which places it in the "High Acceptable" range, and is included in the grade scale "B" adjective rating category "Excellent", resulting in an application that is feasible to be accepted and used by users. This application is a good information media for Ciputut River Tubing, creating a more interactive visitor experience, and providing in-depth knowledge about Ciputut River Tubing tours.

Keywords: *Agile Development, Augmented Reality, Ciputut River Tubing, Marker Based Tracking, Serayu Larangan*