ABSTRACT

DESIGN AND BUILD AUGMENTED REALITY APPLICATION AS A SOLAR SYSTEM LEARNING MEDIA BASED ON ANDROID FOR CLASS 6 STUDENTS OF SDN 2 KELUTAN NGANJUK REGENCY

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The Solar System began to be taught to 6th grade elementary school students, the material teaching process was more emphasized on the theory of explanations from textbooks and a little practice using simple media, so not a few students felt that the learning method was considered very less effective. The purpose of this research is to develop an android application using Augmented Reality technology as a learning medium for the Solar System by using the Marker Based Tracking method and for testing applying the Distance, Light Intensity and Usability tests, in order to be able to provide an innovation with learning methods that can create an interactive learning communication. between students and teachers, this method was chosen because the use of markers would be more effective and interactive if used for learning purposes. Application development using Unity 3D and Vuforia software to be able to provide alternative learning media that is interesting and interactive for students of SDN 2 Kelutan Kab. Nudge. The Waterfall model is the model used in the development of this application. Application testing is done by testing distance, light intensity, and usability, the test gets the results of the ideal use of the application at medium distances (30 – 40cm), with scenes during the day (90-120 lux), at night (40-50 lux), At usability testing obtained a score of 90.6% or "Very Good".

Keywords** : **Augmented Reality, Tata Surya, Unity3D, Usabillity.