

## **ABSTRACT**

### **AUGMENTED REALITY 3D LUNAR ECLIPSES and SUN MEDIA-BASED LEARNING, AS TOTAL MARKERLESS MULTITARGET on ANDROID**

**(Case Study: Sumsel Jaya Baru Elementary School Palembang)**

*Nowadays technology is the technology of augmented reality. Augmented reality (AR) is a technology that combines the two dimensional virtual objects or three dimensions into a real three-dimensional environment and then projecting the virtual objects in real time. In the field of entertainment and game shows have had a lot of things that are more compelling interest in children of elementary school age, for example the cartoon movie as well as a three-dimensional animation, while in education learning methods of augmented reality is still rare. These problems arise in many primary school, particularly at the ELEMENTARY SCHOOL New Palembang Sumatra Jaya. Most of the delivery of the lesson still stiff and monotonous with the media text books pictorial two dimensions that make students tend to be less passive and interactive media because the image is not able to give a reciprocal response, less visible and less interesting. Such learning can be diterapkan on the total lunar eclipse, total solar eclipse, and the Earth's rotation, so that learning can be visualized. System development methodology used is the method Prototype. System development is done using the unity 3D tools, SDK android SDK and vuforia. System modeling is done by visual-based using UML. These applications are built and designed to create a more interesting learning susana and interactive. Augmented Reality application is implemented in multitarget based on android.*

*Keywords: eclipses and Earth's rotation, Markerless 3D, Augmented Reality, Unity 3D, Multitarget Android*