

# ***LEARNING APPLICATION INTRODUCTION AND SPACE CONSTRUCTION FORMULA USING AUGMENTED REALITY BASED ON ANDROID***

***(CASE STUDY AT NGEMPLAK NGANTI STATE PRIMARY SCHOOL)***

**MAULIDYA WAHYU ANNISA' UFITRI**

*Informatics Study Program, Faculty of Science & Technology*

*University of Technology Yogyakarta*

*Jl. Ringroad Utara Jombor Sleman Yogyakarta*

*E-mail : [maulidyawahyu04@gmail.com](mailto:maulidyawahyu04@gmail.com)*

## ***ABSTRACT***

*This research aims to design and build a learning application for recognition and space building formulas using Android-based augmented reality. The application focuses on grade 5 students at Ngemplak Nganti Elementary School in the Sleman Regency area, Yogyakarta Special Region. Spatial building material requires 3D visualization in delivering the material. Learning to build space still uses manual methods (activities such as reading books, taking notes on material and working on questions from the teacher). This research uses the waterfall method, the data collection method used is using a survey method and using a questionnaire. This application can be used on the Android system and was created using Unity software. This application uses camera sensors and markers to display 3D objects. The results of this research were implemented into an Android application.*

*Keywords: Augmented reality, Marker, Android, Build space, Formula*