# DEVELOPMENT OF AUGMENTED REALITY TECHNOLOGY AS AN ANDROID-BASED LEARNING MEDIA FOR WOOD WORK PRACTICE

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ABSTRACT

Woodwork can support / facilitate the development process in the project or to support the contents of the building in the form of furniture / furniture construction, cabinets, chairs, tables, scaffolding and so on. Wood is chosen as a construction material, in addition to the reason it is easy to obtain, the price is relatively cheap and has a high aesthetic value. The interesting thing that was encountered in the course of the Wood Work practice in the wood workshop PTSP department, FT UNY was (1) students still had difficulty visualizing the pictures contained in the Wood Work practice module so that when they jumped into practice the students did not have a clear picture (2) Students tend not to read the practice module before carrying out the Wood Work practice (3) The material in the Wood Work practice module is quite complex and is dominated by text reading. One breakthrough solution offered is to use Augmented Reality (AR). AR is a multimedia technology that allows people to visualize cyberspace as part of the real world that is around effectively so as to make the real world as if it can be connected to cyberspace and an interaction can occur. AR itself is usually developed on iOS and Android platforms. Both of these mobile operating systems are of course currently a trend among people all over the world, especially the booming Android operating system. Therefore, the research team felt the need for innovative and creative solutions to learning media in the Wood Work practice.

Short-term objectives of this study (1) Produce Android-based AR products in the form of a Wood Work Practice module in the PTSP FT UNY Department to facilitate students' visualization skills instructor (3) Overcoming learning problems that have been in the Wood Working Practices.

The method used is the System Development Life Cycle (SDLC) software development model illustrated by the v-model waterfall. Model-v includes: (1) User needs specification stage (2) System architecture design (3) component design (4) Writing program codes (5) Testing. The test results using ISO 25010 show that the learning media application is declared **very feasible** in the aspects of **functional suitability, compability,** and **usability**. Whereas from the **performance efficiency** aspect, the application is considered **feasible** because there is no memory leak on the running device, and CPU usage is below 15%.

Kata Kunci: *augmented reality, android, wood work, learning media*