

**PERANCANGAN PERANGKAT LUNAK INTERAKTIF MENGGUNAKAN
AUGMENTED REALITY BERBASIS MARKERLESS UNTUK
PEMBELAJARAN TEKNIK KONSTRUKSI KAYU DI SMP 02
SUKOREJO KENDAL**

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ABSTRAK

Proses belajar mengajar sekolah merupakan proses dimana guru memberikan materi dengan menggunakan media-media pembelajaran. Terdapat beberapa strategi pembelajaran yang dapat digunakan oleh guru untuk mengaplikasikan teknologi dalam proses pengajaran dan pembelajaran seperti halnya penggunaan buku berbasis Augmented Reality. Augmented Reality adalah teknologi yang menampilkan objek 3D secara real. Penerapan Augmented Reality masih belum banyak diterapkan pada proses pembelajaran. Seperti pada pembelajaran muatan lokal Teknik Konstruksi Kayu di SMP 02 Sukorejo Kendal. Proses pembelajaran Teknik Konstruksi Kayu masih menggunakan panduan gambar sambungan kayu yang diberikan oleh guru secara manual serta alat peraga sedikit. Sehingga diperlukannya media pembelajaran interaktif dan menarik agar murid mudah dipelajari. Pemanfaatan teknologi Augmented Reality sebagai media pembelajaran Teknik Konstruksi Kayu, model dari gambar yang diberikan guru secara manual bisa ditampilkan secara virtual sehingga murid bisa melihat gambar lebih nyata dan rinci. Penulisan ini bertujuan mengembangkan aplikasi Augmented Reality dengan model konstruksi kayu berbasis Android.

Kata Kunci : Augmented Reality, Media Belajar, Aplikasi Android, Teknik Konstruksi Kayu

**INTERACTIVE SOFTWARE DESIGN USING MARKERLESS BASED
AUGMENTED REALITY FOR LEARNING WOOD CONSTRUCTION
ENGINEERING AT SMP 02 SUKOREJO KENDAL**

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ABSTRACT

The school's teaching and learning are the processes by which teacher provided the material using the medium of instruction. There are several learning strategies that can be used by teachers to apply the technology in the process of teaching and learning as well as the use of an Augmented Reality-based book. Augmented Reality is a technology that displays 3D objects in real. Application of Augmented Reality is still not much applied to the learning process. As to the study of local content in the wood construction engineering Junior High School 02 Sukorejo Kendal. The learning process of wood construction techniques is still using wooden connections guide picture given by a teacher in a manual as well as props are few. So the need for interactive learning media and attractive so that the pupil is easy to learn. Utilization technology of Augmented Reality as a medium of learning techniques of wood construction, the model from the given picture manually teachers could be virtual so that pupils can see the picture more real and detailed. Writing aims to develop applications of Augmented Reality with Android-based models of wood construction.

Keyword : Augmented Reality, Learning Media, Android applications, Wood Construction Techniques