

Design and Development of a Markerless Web-Based Augmented Reality for
Interactive Institutional Introduction(A Case Study of Brilliant Kampung Inggris)
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ABSTRACT

The quick growth of digital technology has raised the demand for interactive, engaging, and easy-to-use introduction materials. Traditional methods that rely mostly on text and still images are seen as less effective in offering a real and complete view to users. Because of this, this study focuses on creating an interactive introduction tool based on Web Augmented Reality (Web AR), using a markerless approach to help introduce the environment and facilities of Brilliant Kampung Inggris (Brilliant English Course). The system was built using Web AR technology, which allows users to access it directly through a web browser without needing to download any extra apps. The markerless method was used so that users can experience Augmented Reality without needing physical markers, making the system more convenient and adaptable. The study used the Multimedia Development Life Cycle (MDLC) method, which includes stages like concept, design, gathering materials, assembly, testing, and evaluation. Visual content was captured with a 360-degree camera and converted into 3D models using Blender, then displayed through Three.js and WebXR technologies. The outcome of this research is an interactive Web AR-based introduction tool that offers a virtual and engaging representation of the Brilliant Kampung Inggris environment. This media can be accessed on different devices and provides a more engaging, informative, and easy-to-use introduction experience. It is expected to help Brilliant Kampung Inggris present its facilities and learning environment to potential students and the public in a more effective and modern manner.

Keyword: Web Augmented Reality, markerless, interactive media, virtual environment, Brilliant English Course.