

**Pengembangan Media Interaktif Augmented Reality untuk Pengenalan
Satwa di Kebun Binatang Surabaya dengan Metode Markerless Tracking**
(Development of Interactive Augmented Reality Media for Animal
Introduction at Surabaya Zoo Using Markerless Tracking Method)
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ABSTRACT

Current animal education media at the Surabaya Zoo is still static and lacks interactivity. This research aims to develop a markerless Augmented Reality (AR) based animal recognition application using Unity 3D. The application is capable of projecting 3D animal models, animations, and sounds directly into the real environment without physical markers. The system's novelty lies in its adaptive interface that categorizes users into Junior (3-13 years old) and Senior (14+ years old) modes based on comprehension levels, along with an integrated automatic quiz feature. Testing results indicate that the application operates stably, making it an effective, targeted, and interactive educational solution to replace conventional information media.

Keywords: *Augmented Reality, Markerless Tracking, Learning Media, Unity 3D, Surabaya Zoo.*