

# ***AUGMENTED REALITY MOBILE APPLICATION AS A MUSEUM COLLECTION DISPLAY (Case Study: **INDONESIAN KARST MUSEUM PRACIMANTORO**)***

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## ***ABSTRACT***

*Museums play a vital role in preserving objects of historical and cultural value. However, the Indonesian Karst Museum currently relies on text and images to showcase its collection, making it less engaging for visitors. This research proposes using Augmented Reality (AR) to present the collection in a more interesting and innovative way. By employing a marker-based method, visitors can explore the museum's collection through interactive 3D objects and real-time explanatory sounds, supported by data from an Application Programming Interface (API). Testing of the application using the black box method, as well as distance and light brightness assessments, showed promising results. The application successfully displayed 3D objects, text, and sound. It worked effectively at distances of 5 cm to 70 cm from the marker and under light conditions ranging from 10% to 100%. The introduction of AR technology is expected to enhance the Indonesian Karst Museum's appeal as an educational tourism destination, providing richer visitor experiences and deeper understanding of Indonesia's natural heritage.*

*Keywords: Augmented Reality, museum, 3D object, Application Programming Interface, Marker based*