

***DESIGN AND DEVELOPMENT OF THE YOGYAKARTA MANDALA
AEROSPACE MUSEUM INTRODUCTION APPLICATION USING
AUGMENTED REALITY
(Case Study: Yogyakarta Aerospace Museum)***

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ABSTRACT

A museum is a place where there are cultural heritage objects that can be used to increase insight and knowledge regarding the history of the past. However, in reality, many historical objects in museums are damaged due to negligence by visitors and museum management. Augmented Reality (AR) is a technology that is developing and is very popular nowadays, so it offers new opportunities as an alternative medium for recognizing objects in museums. This research aims to implement AR technology to introduce museum objects so that they appear interactive to visitors and can reduce the risk of damage to objects in the museum. With the development of this application, it uses a marker-based method in augmented reality markers or two-dimensional object markers as markers that will later be read by the camera. developing an Augmented Reality (AR) application using the Marker Based method, where the marker acts as a trigger for the camera to display 3D objects and appropriate historical information. Through this approach, it is hoped that the AR application can become an efficient means of enriching visitor experiences, building deeper engagement with aviation history, and becoming a source of inspiration for the younger generation in understanding the journey of the Indonesian Air Force. The results of the research are an application for introducing collections in museums using Augmented Reality technology with a marker based method. Apart from that, the test results show that all functional requirements have been met by the system and can be used according to needs and all application features can be run properly.