

**IMPLEMENTASI ALGORITMA FAST *CORNER DETECTION* DAN
NATURAL FEATURE TRACKING BERBASIS *AUGMENTED REALITY*
DALAM MEMPELAJARI KISAH PARA NABI DAN RASUL**

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ABSTRAK

Iman kepada Nabi dan Rasul merupakan suatu kewajiban bagi umat Islam, hal ini merupakan rukun iman ke-4. Salah satu langkah awal untuk mengenal dan mengetahui Nabi dan Rasul yaitu melalui kisahnya. Dengan memanfaatkan teknologi *augmented reality* yang seperti *game* diharapkan dapat meningkatkan minat serta motivasi siswa dalam mempelajari kisah Nabi dan Rasul. Dalam proses pendeteksian *marker* menggunakan algoritma FAST *Corner Detection* dan *Natural Feature Tracking*. *Marker* yang dikenali akan menampilkan objek 3D serta penjelasan suara mengenai Kisah Nabi dan Rasul. Terdapat pula Kuis untuk evaluasi belajar secara singkat. Pengujian dilakukan dengan pengujian *alpha* dan *beta* dengan menggunakan *Black-box testing* dan kuesioner guna mendapatkan hasil terkait kesesuaian sistem yang dibangun dengan yang dibutuhkan. Diharapkan aplikasi ini dapat membantu proses kegiatan belajar mengajar yang lebih menarik dan interaktif.

Kata Kunci: Nabi dan Rasul, *Augmented Reality*, *Natural Feature Tracking*

**IMPLEMENTATION OF FAST CORNER DETECTION AND NATURAL
FEATURE TRACKING ALGORITHMS BASED ON AUGMENTED REALITY
IN LEARNING THE STORIES OF PROPHETS AND APOSTLES**

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ABSTRACT

Belief in the Prophets and Apostles is an obligation for Muslims, this is the 4th pillar of faith. One of the first steps to get to know and understand the Prophets and Apostles is through their stories. By utilizing augmented reality technology like games, it is hoped that it can increase students' interest and motivation in learning the stories of the Prophets and Apostles. In the marker detection process, the FAST Corner Detection and Natural Feature Tracking algorithms are used. The recognized markers will display 3D objects and voice explanations about the Stories of the Prophets and Apostles. There is also a Quiz for a brief learning evaluation. Testing is carried out with alpha and beta testing using Black-box testing and questionnaires to obtain results related to the suitability of the system built with what is needed. It is hoped that this application can help the teaching and learning process to be more interesting and interactive.

Keywords: Prophets and Apostles, Augmented Reality, Natural Feature Tracking