KAJIAN TENTANG APLIKASI *AUGMENTED REALITY* BERBASIS *MARKER*

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ABSTRACT

In this paper, marker detection and pose estimation algorithms are presented for Augmented Reality applications. This marker detection algorithm was designed specially for square-shaped marker. It consists of line detection, corner detection, and square-shaped detection. The pose estimation algorithm is used involving intrinsic and ecstrinsic paramater of camera. The position of a marker can be known from the ectrinsic parameter of camera which is translation and rotation. Translation and rotation ocurr in three coordinate axes, which is x,y,and z.The translation value can be obtained from the midpoint of the marker, and the rotation value can be calculated with rotation matrix. Several experiments have been conducted on various images and video sequences. The results of the experiments show that the algorithms can detect marker in various angles and estimate the pose well that the user of the application can interact with the object from digital world.

Key words

Augmented reality, marker detection, pose estimation