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Development of pose estimation algorithm for Quranic Arabic word

(Article) (Open Access)

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Abstract

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The study carried out in this report proposes the best keypoint detection, description, and pose estimation algorithm combination for Quranic Arabic words. Oriented-FAST Rotated-BRIEF (ORB) and Accelerated-KAZE (AKAZE) are used as the keypoint detection and description algorithms while Random Sample Consensus (RANSAC) and Least Median Squares (LMEDS) are used to evaluate the homography for pose estimation algorithms. The algorithms are combined with each other to provide four different techniques to estimate the pose of Quranic Arabic words. The algorithms are tested on a limited dataset chosen from a phrase within the Quran. Performance of each algorithm is measured in real-time through inlier to keypoint ratio which determines pose accuracy. © 2018 Universitas Ahmad Dahlan.

SciVal Topic Prominence

Topic: Image matching | Algorithms | Binary descriptors

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AKAZE LMEDS ORB Pose estimation RANSAC

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