Measurement of Displacement and Velocity of a Moving Object from Real Time Video

Abstract

This article focuses on an efficient algorithm for measuring object displacement and velocity from real time video. The proposed technique for object identification and tracking is based on background subtraction with optimized threshold binarization. Mapping techniques have been developed to relate image with real world. The algorithm is also capable of working with a bad lighting conditions using histogram equalization approach. Further, the real scenarios like presence of noise, shadow, and multiple moving object environments have been taken under consideration for developing the algorithm.

References
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Index Terms

Computer Science
Multimedia
Keywords
Video Capture  Histogram Equalization  CLAHE  Binarization  Background Estimation  Background Subtraction  Mapping  Camera Coverage  Camera Span  Displacement and Velocity  Memory Management  Time Complexity