

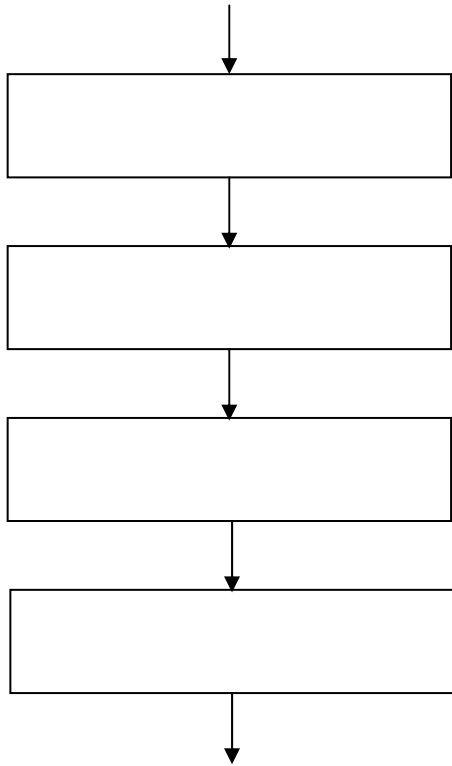
Compensating the Effect of Vertical Camera Shake by Tracking of Prominent Horizontal Edges

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Abstract

In this paper, a feature-based stabilization method for tracking of floating targets is proposed. This method matches the prominent edges in subsequent frames to compensate for the vertical camera shakes. Different edge detection operators, and different methods to distinguish the prominent edges are investigated. The prominent edges in subsequent frames are correlated to each other to find the best matches. In a test on 3 sequences of 60 successive frames, a complete vertical stabilization was achieved.

Key words: Image stabilization, Camera shake, Edge detection, Visual tracking, Machine vision.



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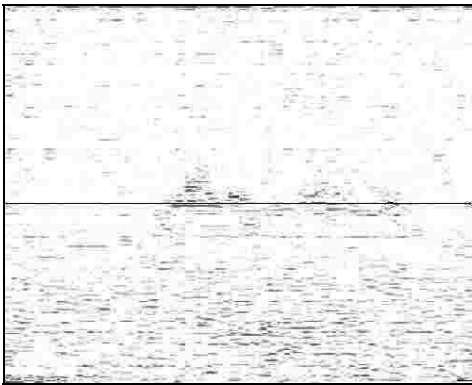
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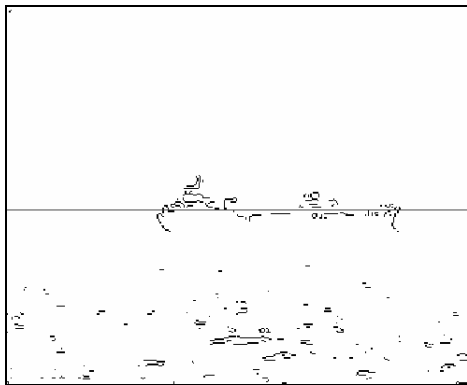
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- 3- Laplacian of Gaussian
- 4- Perwitt
- 5- Canny
- 6- Matlab

- 1- Sobel
- 2- Roberts

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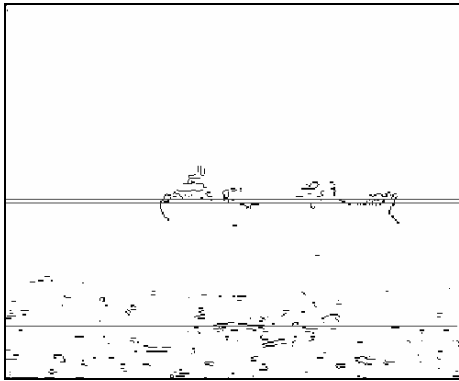
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