

## Flicker Detection with Motion Tolerance for Embedded Camera

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**Abstract :** CMOS image sensors with a rolling shutter are used broadly in the digital cameras embedded in mobile devices. The rolling shutter suffers the flicker artifacts from the fluorescent lamp, and it could be observed easily. In this paper, the characteristics of illumination flicker in motion case were analyzed, and two efficient detection methods based on matching fragment selection were proposed. According to the experimental results, our methods could achieve as high as 100% accuracy in static scene, and at least 97% in motion scene.

**Keywords :** illumination flicker, embedded camera, rolling shutter, detection

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