عنوان مقاله:

Statistical Background Modeling Based on Velocity and Orientation of Moving Objects

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خلاصه مقاله:

Background modeling is an important step in moving object detection and tracking. In this paper, we propose a new statistical approach in which, a sequence of frames are selected according to velocity and direction of some moving objects and then an initial background is modeled, based on the detection of gray pixel's value changes. To have used this sequence of frames, no estimator or distribution is required. In this work, smoothly changing pixels are modeled by averaging and other statistical calculations are done for more varying pixels. The proposed algorithm works well, even if the moving objects are present in all frames. We have evaluated this novel method successfully on highly textured scenes, with challenging phenomena such as dynamic background, area of high foreground traffic and moving objects with different speeds and sizes.

کلمات کلیدی:

Background Modeling, Orientation, Velocity, Modified Set of Frames

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