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Authors:

Punam Patel

Shamik Tiwari

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Abstract

Dynamic textures are common in natural scenes. Examples of dynamic textures in video include fire, smoke, trees in the wind, clouds, sky, ocean waves etc. The fire is characterized using efficient features and detection of the same using a suitable processing. Every pixel is checked for the presence or absence of fire using color features, and periodic behavior in fire regions is also analyzed. In this paper we use combined approach of color detection, motion detection and area dispersion to detect fire in video data. Firstly, the algorithm locates desired color regions in video frames, and then determines the region in the video where there is any movement, and in the last step we calculate the pixel area of the frame. The combination of color, motion and area clues is used to detect fire in the video.

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Index Terms

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Keywords

RGB Color model YCbCr color model motion detection background subtraction area dispersion

