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### **RESEARCH ARTICLE**

# Detection of Fire Flow in Videos by SVM Classifier with EM-Segmentation Method

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*Abstract - In the past decennary computational vision based flame detection has focused significantly with a camera surveillance system omnipresent, whereas many penetrative features such as colour, shape, texture, etc., have been employed in the literature. This paper proposed a motion detection of motion features, the variation of the flow on fire motion in turbulent, fast and rigid motion of the object. The fire motion is not characterized by the classical optical flow methods. Optical mass transport model and Data driven optical flow scheme are the two methods used to detect dynamic texture and saturated flame in the fire detection task combined with EM segmentation image classification process for accuracy of the result. The proposed system we use Support Vector Machine instead of neural network influences.*

*Index Terms - Fire detection, SVM Classifier, optical flow, EM segmentation*

Full Text: <http://www.ijcsmc.com/docs/papers/February2014/V3I2201499a60.pdf>