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Behaviour Pattern Modelling For Wild Fire Using HHIC

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Abstract

Forest fire is a major environmental issue creating ecological damage. Fire detection is a key element for controlling such incident. There are many fire detection algorithms available, each one of it has its own approach of predicting fire. The work processes the satellite images based on its intensity levels to find out the fire affected region (hot spots). In order to detect the hot spots Heterogeneous Hotspot image Clustering algorithm is used and the direction of the fire spread regions are plotted based on the clusters obtained by the algorithm for the given input image. The implementation is based on RGB values of pixels of an image. The algorithm's efficiency is relatively high when it is applied on forest fire images. HHIC (Heterogeneous Hotspot image Clustering Technique)method be proposed based on computer vision to identify flame regions within image and proposed it. The method is applied to each frame in the captured image to detect the impending wild fire. The main proposals of this wild fire detection system is to employ a hybrid model which includes, dendogram, colour and gray-level co-occurrence matrix.

Keywords: image clustering, heterogeneous, hotspot, detection, captured, clustering, region plotted, fire detection.