

this feature of the flame, the movements of the flame were detected through the videos. However, this method alone is insufficient for detecting fire.

The last and most important stage of the fire detection framework is the detection of fire with the CNN model. In order to find the CNN model with the highest classification success, the CNN model was trained with transfer learning method with four different architectures. These architectures are Inception V3, SqueezeNet, VGG16 and VGG19. Four different CNN models were trained using 3041 images. The cross-validation method was used to test the model objectively. The k-fold value is set to 10. As a result of the experiments, 98.8% classification success was obtained from the Inception V3 CNN model, 97.0% from the SqueezeNet CNN model, 97.3% from the VGG16 CNN model,

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