## EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

## **ABSTRACT**

Forest fires are a major issue and have been affecting the wildlife and living organisms and also being the cause for major carbon emission. To tackle this problem numerous solutions have been developed with the help of many devices. The solution is simple detect the fire before it starts and alert the officials if it is already under fire the prediction alerts and checks where else the fire is or it will move on. Implementation of sensors and cameras, Cameras used in highly dense forest areas since satellite can't get a good aerial view of the surroundings. Satellites play an important role in forest fire detection. The real time detection is done through satellite and cameras, Model also uses sensors to detect increase in temperature and sensors that can detect increase in carbon emissions. Classify images as two sets forests on fire and forests that are not on fire. To train the model ML is used, to train the model that is capable of distinguishing between forests that are on fire and forests that are not. Then the limit is set for the computer to detect fire if the limit for the fire is reached a fire alert is issued and the concerned authorities are notified and the location under observation is also sent as coordinates to the concerned. The entire project is developed easily with this implementation method. Model can save lot of living organisms and prevent forest fire across the world all it needs is few automation with Intelligence that can make autonomous decisions.

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