LITERATURE SURVEY

Emerging methods for Early detection of forest fires:

S.NO	TITLE	OBJECTIVE	METHODOLOGY	INFERENCE
1.	Early forest fire detection system using optical remote sensing (2020)	To fight forest fires occurring throughout the year with an increasing intensity in the summer and autumn periods.	Detection methods that use optical sensors or RGB cameras combine features that are related to the physical properties of flame and smoke, such as colour, motion, spectral, spatial, temporal, and texture characteristics.	Use of modern optical sensor networks which are known for their long range communication capabilities and extremely suitable for sensor and telemetry applications.
2.	Early Forest Fire Detection using Drones and Artificial Intelligence (2019)	To detect forest fires early, the proper categorizatio n of fire and fast response from the firefighting departments .	The fire detection is based on a platform that uses Unmanned Aerial Vehicles (UAVs) which constantly patrol over potentially threatened by fire areas. The UAVs utilize the benefits from Artificial Intelligence (AI). This allows to use computer vision	Use of drone cameras and UAVs, because it patrols the forest always.

			methods for recognition and detection of smoke or fire, based on images or video input from the drone cameras.	
3.	Fire Detection in Video Stream by Using Simple Artificial Neural (2018)	It helps in processing of surveillance video streams for recognizing abnormal or unusual events and actions.	model is divided into two parts in which the first part involves data collection, data pre processing and data augmentation and the second part involves model building, model training, and prediction using real-time data using surveillance video, and an alarming system.	it works in real-time and can send alert emails indicating fire along with a siren.
4.	A survey on forest fire detection	Different image processing techniques can be used to detect fire and smoke.	This method use temporally extended covariance matrices representing all the information together. The method works only well when the fire is clearly visible. If the fire is small and if it is far away from the camera or covered by dense smoke the method fails. Wavelet and Color model	Wavelet based smoke detection is used for smoke detection in video sequences of outdoor environment. Covariance method is for flame detection

			combined together and detect smoke earlier.	
5.	Early Fire Detection System using wireless sensor networks.	To detect fires from huge cause of forests.	The hierarchical architecture of Wireless Sensor Networks is most efficient and extensible for dense networks which simplifies the management of the forest as well as the communication and the localization of fire and sensors.	cluster heads as landmark for the rest of sensor for localization in order to define their GPS coordinates according to the cluster head's coordinate.

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