

Emerging Methods For Early Detection Of Forest Fire

PROJECT STATEMENT

1. Wildfires are blazes that are uncontrolled and fueled by different types of weather, dry underbrush, and wind. They cause significant destruction in a very short amount of time and are difficult to extinguish.

2. Over 9 million acres of land have been destroyed due to treacherous wildfires. Wildfires also cause 339,000 deaths a year. In contrast, prescribed fires (fires ignited for ecosystem restoration and reduction of risk of wildfires) are typically managed to minimize downwind impacts on populated areas, however those in close proximity may be exposed to smoke 4.

3. Multi-temporal threshold algorithm in forest fire detection using MSG satellite was the solution built in the Zimbabwe 1.

4. A solution is required to monitor and display key atmospheric data in wildfire-prone areas so that potential wildfires can be identified before they grow significantly large.

Question	Description
What are the benefits?	Early detection of forest fire can significantly shorten the reaction time and also reduce the potential damage as well as the cost of firefighting.
Why the issue occurs?	High atmospheric temperatures and dryness (low humidity) offer favorable circumstance for a fire to start. Man made causes - Fire is caused when a source of fire like naked flame, cigarette or bidi, electric spark or any source of ignition comes into contact with inflammable material.
How it is better?	Obey local laws regarding open fires, including campfires. Keep all flammable objects away from fire Have firefighting tools nearby and handy.
Obstacles	Tedious To Find And Train Datasets. Model Creation And Training The CNN Model
Gains	Get Precaution Notification Regards Forest Fire Knowing Humidity And Temperature Of The Forest Region