EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRE

26.09.2022

Monday

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Overview

Forest fires are a major environmental issue, creating economic and ecological damage while endangering human lives. There are typically about 100,000 wildfires in the United States every year. Over 9 million acres of land have been destroyed due to treacherous wildfires. It is difficult to predict and detect Forest Fire in a sparsely populated forest area

Aim

1. We can find forest fire early to avoid vulnerability and upcoming disaster.

2. Early Warning system to alert the officers and people to save lot of lives.

3. It is real time detection of forest fire.

Specifications

HARDWARE SPECIFICATION

The hardware requirements may serve as the basis for a contract for the implementation of the system and should therefore be a complete engineer as the starting point for the system design.

Ram   : 8GB Ram or more

Processor   : Any Processor

GPU   : 8GB or more

Hard Disk   : 10GB or more

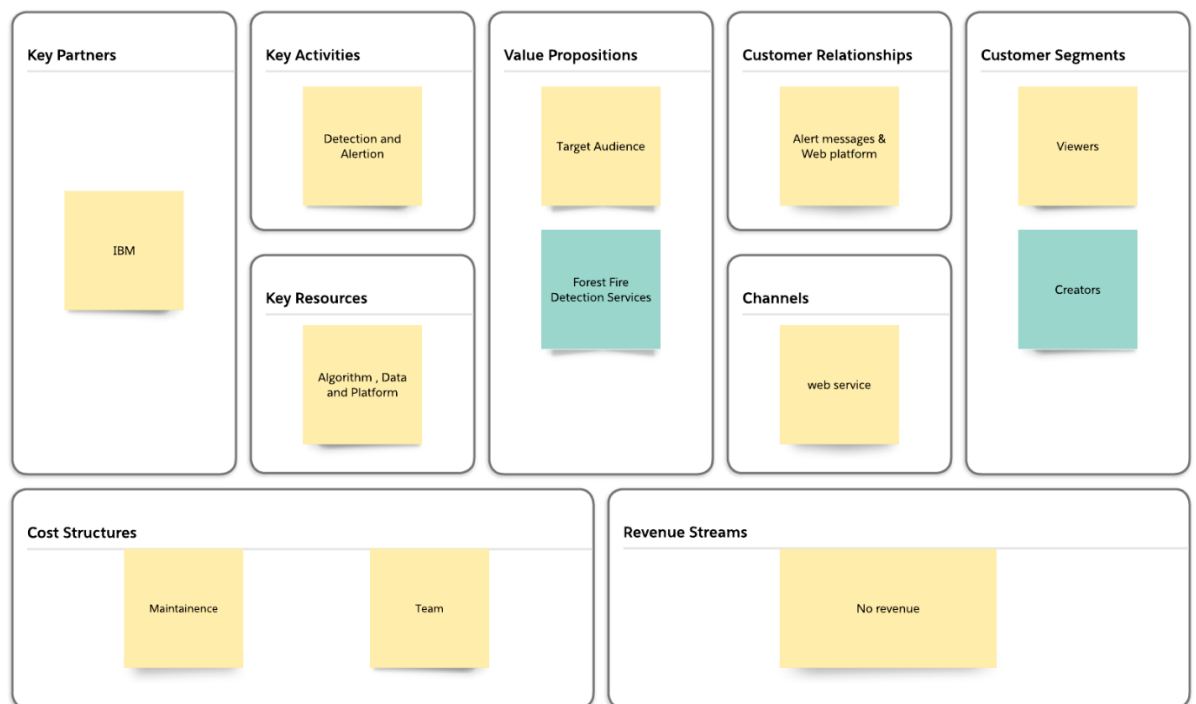Speed   : 1.4GHZ or more

SOFTWARE SPECIFICATION

The software requirements give detailed description of the system and all its features.

- Python
- Keras
- Tensorflow
- OpenCV
- Numpy
- Pandas

- Visual studio code
- Python-Flask
- IBM cloud
- Keras-tuner

BUSINESS MODEL

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
IBM	Detection and Alertion	Target Audience	Alert messages & Web platform	Viewers
	Key Resources	Forest Fire Detection Services	**Channels**	Creators
	Algorithm , Data and Platform		web service	

Cost Structures	Revenue Streams
Maintainence Team	No revenue

SOLUTION

- ❖ **Fetch data from cctv and drones**
- ❖ **Image Preprocessing**
- ❖ **Image classification using CNN**
- ❖ **Video Analysis**
- ❖ **If fire detected send alert messages**

CONCLUSION

Forest fires are a major environmental issue, creating economic and ecological damage while endangering human lives. Our project aims to overcome this issue ,in order to reduce loss of life, damage and reduce vulnerability.