Solution Architecture:

Date	30 September 2022
Team ID	PNT2022TMID17321
Project Name	IoT based smart crop protection system foe agriculture
Maximum Marks	4 Marks
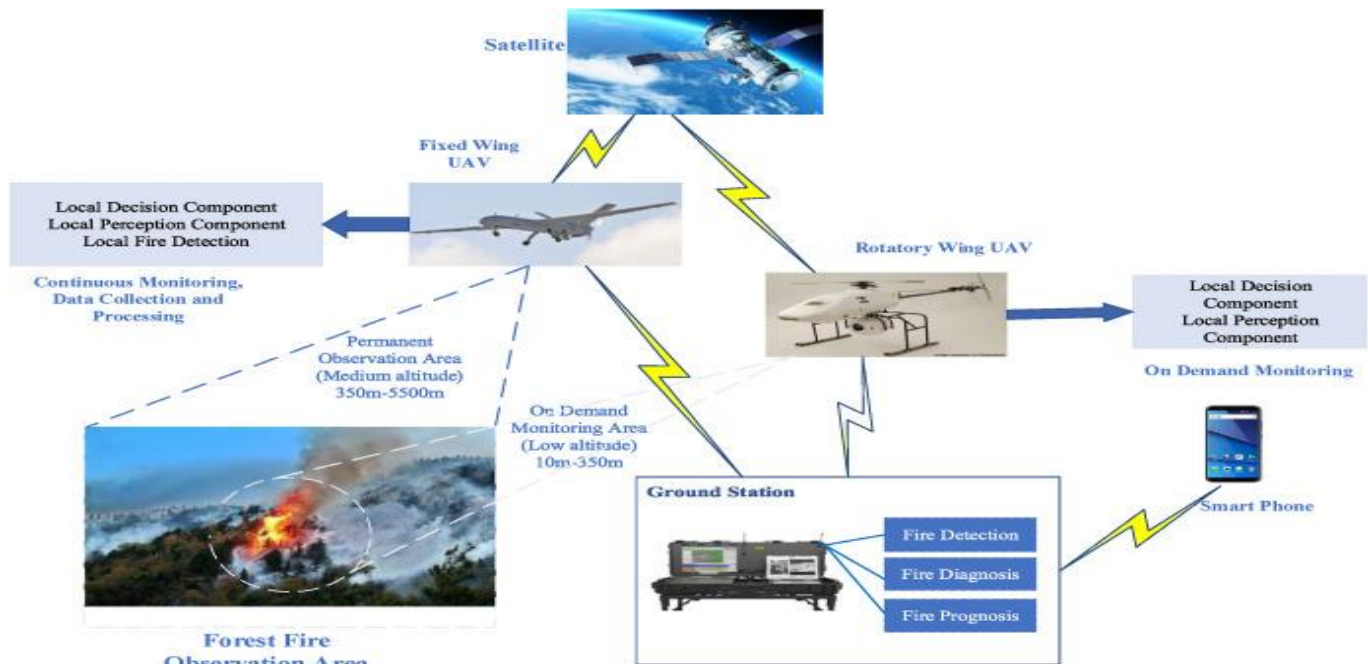
Key points:

- **Sensor technology** is an important tool in detecting forest fires by monitoring pressure, humidity, temperature, and chemical parameters. In particular, particulate, carbon dioxide (CO_2), and carbon monoxide (CO) sensors are important for detecting wildfire smoke.

- There are three main types of fire alarm monitoring systems: **ionization, photoelectric, and combination alarms**. Below we will discuss each type of alarm and how they can help detect fires

- Multiple channel or pixel array sensors monitoring flames in the near IR band are arguably the most reliable technologies available for detection of fires

- Temperature sensor and smoke sensor are deployed at certain distances so that the whole forest area can be kept inside the view in order to detect the ignition alarming temperature and the range of carbon dioxide gas (CO_2). These sensors will send the signal or the information to the microcontroller

- **Satellite remote sensing** offers a useful tool for forest fire detection, monitoring, management and damage assessment. During a fire event, active fires can be detected by detecting the heat, light and smoke plumes emitted from the fires