Project Design Phase-II Technology Stack (Architecture & Stack)

Team ID PNT2022TMID35162

Project Name Emerging method for Early Detection

of Forest Fires

Maximum Marks 4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

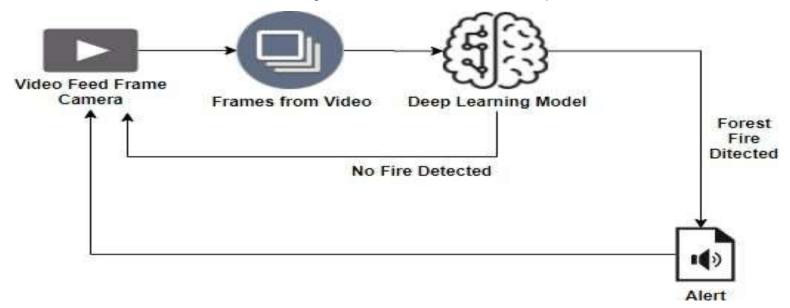


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Mobile App, database system	HTML, CSS, JavaScript / Angular JS / React JS etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Camera	Logic for a process in the application	FPV Camera technology
4.	Smoke sensor	Logic for a process in the application	MQZ, etc.
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloud and etc.
7.	database system	File storage requirements	Other Storage Service or Local File system
8.	Rotarywing UAV	Purpose of firefighting used in the application	IBM Weather API, etc.
9.	E Fixedwing UAV	Purpose of weather monitoring used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration:	Local, Cloud Foundry, Kubernetes, etc.

	Cloud Server Configuration :	

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Open source framework
2.	Security Implementations		e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Microservices)	Technology used
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5.		Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used