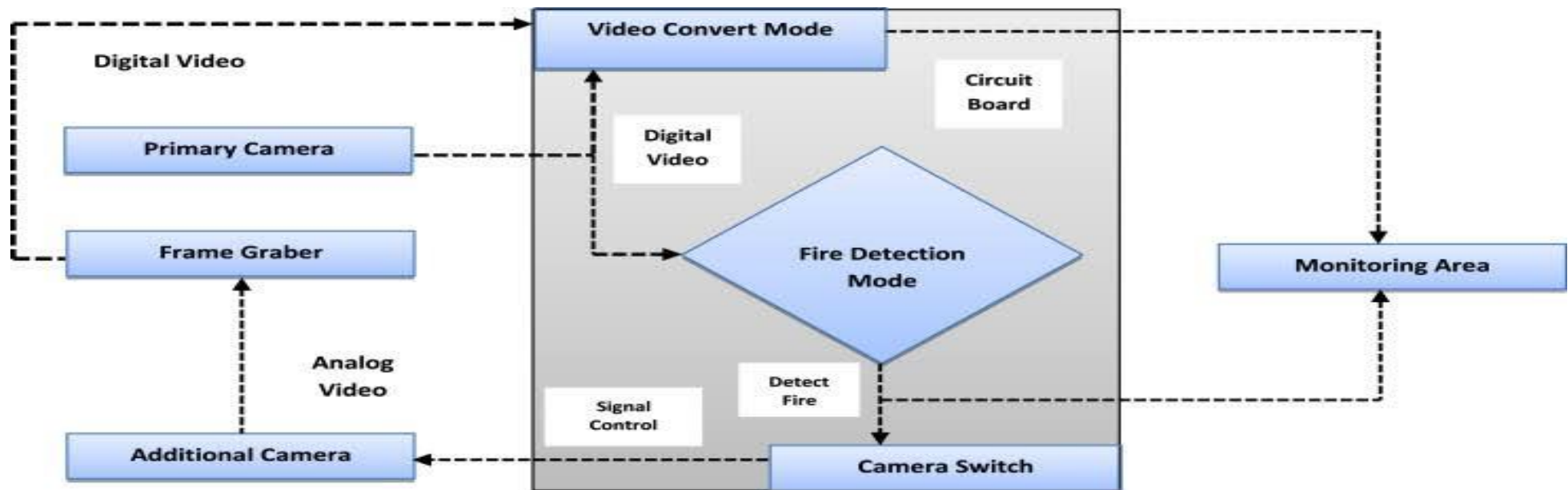


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

Date	03October 2022
Team ID	PNT2022TMID27778
Project Name	Emerging methods for early detection of forest fire
Maximum Marks	4 Marks

**Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	NFPA 72,GUI
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	NoSQL
6.	Cloud Database	Database Service on Cloud	Mobile,web and server
7.	File Storage	File storage requirements	Opencv
8.	External API-1	Purpose of External API used in the application	ambee
9.	External API-2	Purpose of External API used in the application	Fire and smoke
10.	Machine Learning Model	Purpose of Machine Learning Model	Artificial neural networks
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Earth observing services

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Arduino uno
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Drones,robot and satellite
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	bosch

S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Terrestrial,aerial
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Wsn based system, camera based system, machine learning