

# Project Design Phase-II

## Solution Requirements (Functional & Non-functional)

Date	16 October 2022
Team ID	PNT2022TMID08041
Project Name	Emerging methods for early detection of forest fires.

### Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Requirement	Mainly to detect the forest fire at the earliest stage and to send the alarm message.
FR-2	User Registration and Confirmation	Both are done with ID credentials. The confirmation will be sent to the authorised person.
FR-3	Authentication	Using Government certified IDs the user identity is authenticated.
FR-4	Alarm System	This system is built in the way that on detecting the fire without any delay the alarm messages are sent to the forest department.
FR-5	Tracking report	We keep a track on the events that occur in the forest so that in the near future we can avoid unfavourable situations.
FR-6	Storage	Store the information of previously occurred forest fires and the measures taken at that time which will be helpful for future references to take actions faster. These data are accessible by only the registered users.

## Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The system is built to detect forest fire through images and videos uploaded, it is made more user-friendly and easy enough that even someone without technological expertise can use it.
NFR-2	<b>Security</b>	This system keeps a high level of security. It does not accept corrupted media into the system. Not everyone has access to the system.
NFR-3	<b>Reliability</b>	Possibility of a false alarm is very low as the system is trained with all stages of forest fires and no forest fire conditions.
NFR-4	<b>Performance</b>	System shows high accuracy in detecting the fire and sends the alert message without any delay or lag.
NFR-5	<b>Availability</b>	The system works 24/7 everyday and can even analyse the live videos. Incase of fire they alarm us by sending alert messages immediately.
NFR-6	<b>Scalability</b>	Faster and efficient detection of fire even if the data are larger scale.