

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	03October 2022
Team ID	PNT2022TMID48153
Project Name	Emerging methods for early detection of forest fire
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Video surveillance start	Start surveillance through remote control
FR-2	Forest monitoring	Continuous monitoring through camera
FR-3	Detect fire	Fire is detected through CNN model
FR-4	Alert	Alert the forest officials through message

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Monitoring of the potential risk areas and an early detection of fire can significantly shorten the reaction time and also reduce the potential damage as well as the cost of fire fighting.
NFR-2	<b>Security</b>	More secure environment
NFR-3	<b>Reliability</b>	Model is safe to install
NFR-4	<b>Performance</b>	Model will achieve high accuracy
NFR-5	<b>Availability</b>	Build model is available all the time
NFR-6	<b>Scalability</b>	The current requirement for a cargo compartment detection system is that a fire has to be detected in 1 minute, and in that time be so small that the fire is not a significant hazard to the airplane. Nuisance alarms also plague the industry, with upwards of 90% of fire alarms being false warnings