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

Date	18 October 2022
Team ID	PNT2022TMID23627
Project Name	Emerging methods for early detection of forest fires
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	Data collection	The system shall be given the sets of fire images and recognize whether there is a fire or a smoke or if there is no fire
FR-2	Data acquisition	The system shall take real inputs of images of surveillance camera and determine whether the image contains a fire or not
FR-3	Fire Detection	The system shall have an accuracy rate of at least 90% When attempting to detect if a given image has a fire or not
FR-4	Alert	The system shall alert the forest officials through alerting sytems

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Usage of the camera images to observe, detect and report fire events.
NFR-2	**Security**	Trained on all extreme conditions and different location in detecting and predicting fire.
NFR-3	**Reliability**	An real time system of getting videos and images is used to augment the accuracy of the detection.
NFR-4	**Performance**	The monitoring system should enabled all time and any small chance of fire to forest should be updated soon as possible

NFR-5	**Availability**	Forest fire are common hazards in forests, particularly in remote or unmanaged areas. It is possible to detect forest fires, elevated CO2 and temperature levels using AI.
NFR-6	**Scalability**	The display unit are enabled through out the application process and final output is achieved