|  |  |  |
| --- | --- | --- |
|  | **Project Design Phase-II** | |
|  | **Solution Requirements (Functional & Non-functional)** | |
|  |  |  |
| Date |  | 16 October 2022 |
| Team ID |  | PNT2022TMID31216 |
| 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** | **Functional** | **Sub Requirement (Story / Sub-Task)** |
| **No.** | **Requirement (Epic)** |  |
|  |  |  |
| FR-1 | Video surveillance start | Start surveillance through remote control |
|  |  |  |
| FR-2 | Forest monitoring | Continuous monitoring through camera |
|  |  |  |
| FR-3 | Image Processing | Real time data processing and generating and to |
|  |  | manipulate the data on the cloud side. |
| FR-4 | Create and test model |  |
|  |  |  |
| FR-5 | Detect fire | Fire is detected through CNN model |
|  |  |  |
| FR-6 | Alert | The system shall send a notification to the admin |
|  |  | when it recognizes a fire. |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
|  |  |  |
| NFR-1 | **Usability** | The use in real time, within tactical framework |
|  |  |  |
| NFR-2 | **Security** | System has cloud backup and thus secured. |
|  |  |  |
| NFR-3 | **Reliability** | In any incident the system will inform before any |
|  |  | fire accident. |
| NFR-4 | **Performance** | Putting in more training data into the system will |
|  |  | improve the accuracy of its ability to detect a fire |
| NFR-5 | **Availability** | Build model is available all the time |
|  |  |  |
| NFR-6 | **Scalability** | Putting in more training data into the system will |
|  |  | not affect the system. |