Project Design Phase-I Proposed Solution Template

|  |  |
| --- | --- |
| Date | 17 October 2022 |
| Team ID | PNT2022TMID48835 |
| Project Name | Project – Emerging Methods for Early Detection of Forest Fires |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | **Forest fires** are a major threat to the environment and to the animals, plants and humans who inhabit them. The current monitoring systems for forests are not equipped with the best for **detecting** forest fires or **predict them in advance**. Due to this outdated model, there is a delayed response  and this delay leads to **loss of lives and resources**. |
| 2. | Idea / Solution description | Our solution uses **Artificial Intelligence** to analyse **video and image data** of forests to predict and detect forest fires. It also sends alerts to the respective fields for quick evacuation and response to control the fire in  advance. |
| 3. | Novelty / Uniqueness | We use **convolutional neural networks** which consist of input layer, hidden layers and output layer of interconnected neurons. Depending on  the number of hidden layers we have machine learning methods and deep learning methods. |
| 4. | Social Impact / Customer Satisfaction | The application can **provide critical information** about the forests and save lives and valuable resources easily when implemented. The **people being supported by the forests and the people who support the**  **forests**, both are highly benefitted by this solution. |
| 5. | Business Model (Revenue Model) | We can help governments create contract with our application to use our tools to protect the forests. We can **provide our service, help them**  **maintain the tools and troubleshoot any issues** that they face. |
| 6. | Scalability of the Solution | The range of the forests can be increased by **including sensors** for humidity, temperature and other sensors to increase the amount of critical data at hand without compromising the true – false ratio of the results generated by the  Artificial Intelligence Model. |