**Project Design Phase-I**

**Proposed Solution**

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| Date | 24 September 2022 |
| Team ID | PNT2022TMID23189 |
| Project Name | Early detection of forest fires |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

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

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Forest fires are a major environmental issue, creating economic and ecological damage while endangering human lives. There are typically about 100,000 wildfires in the United States every year. Over 9 million acres of land have been destroyed due to treacherous wildfires. It is difficult to predict and detect Forest Fire in a sparsely populated forest area and it is more difficult if the prediction is done using ground-based methods like Camera or Video-Based approach. Satellites can be an important source of data prior to and also during the Fire due to its reliability and efficiency. The various real-time forest fire detection and prediction approaches, with the goal of informing the local fire authorities. |
|  | Idea / Solution description | This sensor based implementation can be used to detect the CO2 level in the forest region so that early prediction of forest fires could be done. |
|  | Novelty / Uniqueness | An alarm or warning could be given which would help the forest reserve officers to take a look at what’s happening and could help them avoid forest fires. |
|  | Social Impact / Customer Satisfaction | It prevents the loss of animal and human lives, prevents air pollution and protects the environment by taking care of the trees without getting them burnt down. |
|  | Business Model (Revenue Model) | This is mainly used in case of forest areas or like sancturies or zoos where the movement of animals could be sensed to protect them from unexpected forest fires. By sensing the level of CO2 and giving a warning earlier. |
|  | Scalability of the Solution | In future, we can enhance our application by adding additional features like immediately stopping the fire to happen by providing **REDD+** measures. |