Project Design Phase-I Proposed Solution Template

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID03339 |
| Project Name | 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.

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | Forest and urban fires are still a serious problem for many countries in the world. The (UAVs), which constantly patrol over potentially threatened by fire areas.  The UAVs also utilize the benefits from Artificial intelligence (AI) and are equipped with on board processing capabilities. |
| 2. | Idea / Solution description | Recent advances in computer vision, machine learning, and remote sensing technologies offer new tools for detecting and monitoring forest fires, while the development of new materials and microelectronics have allowed sensors to be more efficient in identifying active forest  fires. |
| 3. | Novelty / Uniqueness | Permanent monitoring, data collection and processing.  Terrestrial-based early detection systems consist of either individual sensors (fixed, PTZ, or 360◦ cameras) or networks of ground  sensors. |
| 4. | Social Impact / Customer Satisfaction | Growing public alarm at the problem of large- scale forest fires, is evident from an assessment of their past and present repercussions on the  population in general. |
| 5. | Business Model (Revenue Model) | Forest sector has strong importance for the economic, social and environmental issues. Portuguese forestry sector is of great importance for the added value creation, for  the jobs creation. |
| 6. | Scalability of the Solution | There are several factors that affect the evolution of a wild land fire. It is well known that wind is one of the key parameters to understand the forest fire propagation.  Intuitively, the meteorological wind speed tends to drive the main direction of forest fire spread. |