PROJECT PHASE 1

PROPOSED SOLUTION TEMPLATE

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| Date | 18 october 2022 |
| Team ID | PNT2022TMID36539 |
| 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 fires are one of the most vulnerable natural disaster. It affects thousand acres of land and natural resources, which also affects the thousands of living organisms and affects the livelihood of tribes and other forest workers. |
| 2. | Idea / Solution description | The earlier detection of forest fires requires 24/7 monitoring of the forest which is not possible manually. To avoid the delay and manual monitoring   * We can use image processing to monitor forest. * Use computer vision methods for recognition and detection of smoke or fire, based on the still images or the video input from the drone cameras |
| 3. | Novelty / Uniqueness | * Real time computer detects the forest fires at the earliest before being spread or to occur. * Satellite images of forests will be processed for identifying the fire. |
| 4. | Social Impact / Customer Satisfaction | Early detection will helps to   * Prevent the loss of natural resources and wildlife. * It can prevent the livelihood of the surroundings and the people getting affected after the occurrence of forest fires. |
| 5. | Business Model (Revenue Model) | * The proposed method was implemented using the Python programming language on a Corei3 or greater. * The prediction might be right and the can have high reliability. |
| 6. | Scalability of the Solution | * In future we can include machine learning and robotics many other advance technologies to detect the smoke coming from the forest. * Computer vision models enable land cover classification and smoke detection from satellite and ground cameras. |