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| **Team ID** | PNT2022TMID14000 |
| **Project Name** | **Emerging Methods for Early Detection of Forest Fires** |
| **Team members** | **Padmes B**  **Parthasarathi S**  **Parthiban p**  **Pavan kumar K** |

**MILESTONELIST**

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| **Milestone Name** | **Mileston e**  **Number** | | | **Description** | **Mandatory** |  |
| Project Objectives | M-01 | | | We will be able to learn to prepare dataset, image processing, working with CNN layers, read images using OpenCV and CNNfor computervision AI | Yes | - |
| Project Flow | M-02 | | | A project management process flowchart is a graphical aid, designed to visualize the sequence of steps to be followed  throughout the project management process | Yes |  |
| Pre-Requisites | M-03 | | | To complete this project, we should have known following project such as Keras, TensorFlow, Python ,Anaconda, OpenCV, Flask,  Scikit-learn etc.… | Yes |  |
| Prior Knowledge | | M-04 | One should have knowledge on the Supervised Learning ,CNN and Regression Classification and Clustering, ANN | | Yes |  |
| Data collection | | M-05 | We can collect dataset from different open sources like kaggle.com, UCI machine learning etc. | | Yes |  |
| Image  Preprocessing | | M-06 | Importing the ImageDataGenerator libraries, Define  Parameters/Arguments for ImageDataGenerator class, ApplyingImage Data Generator Functionality to trainset and test set | | Yes |  |
| Model Building | | M-07 | Importing the model building libraries, Initializing the model, Adding  CNN  layers, Adding Dense layers, Configuring the learning Process, Train the model, Save the model, Predictions. | | Yes |  |
| Video Analysis | | M-08 | Opencv for video processing, creating an account in twilio service and sending alert message | | Yes |  |
| Train CNN model | | M-09 | Register for IBM Cloud and train Image Classification Model | | Yes |  |
| Ideation Phase | | M-10 | Prepare Literature Survey on the selected Project and Information Gathering, empathy map and ideation | | Yes |  |
| Project Design  Phase-I | | M-11 | Prepare Proposed solution , problem-solution fit and Solution  Architecture | | Yes |  |
| Project Design  Phase-II | | M-12 | Prepare Customer journey ,functional requirements, Dataflow diagram and TechnologyArchitecture | | Yes |  |
| Project Planning Phase | | M-13 | Prepare Milestone list , Activity list and Sprint Delivery Plan | | Yes |  |
| Project  Development Phase | | M-14 | Project Development delivery of Sprint 1, Sprint 2, Sprint 3, Sprint 4 | | Yes |  |

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**ACTIVITYLIST**

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| **Activity Number** | **Activity** | **Sub Activity** | **Assigned To** | **Status** |
| 1. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse1) [OBJECTIVES](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse1) |  | All Members | Completed |
| 2. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse2) [FLOW](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse2) |  | All Members | Completed |
| 3. | [PRE-REQUISITES](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse3) |  | All Members | Completed |
| 4. | [DATA](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse4) [COLLECTION](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse4) | 4.1 Download the  Dataset | NAKUL ANAND C | Completed |
| 5. | [IMAGE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse5)  [PREPROCESSING](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse5) | 5.1 Import the ImageDataGenerator Library.  5.2 Define the  Parameters/Arguments forImageDataGenerator class.  5.3 Applying  ImageDataGenerator  Functionality totrainset and testset. | All Members | In Progress |
| 6. | [MODEL](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse6) [BUILDING](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse6) | 6.1 Importing the model building libraries.  6.2 Initializing themodel.  6.3 Adding CNNlayers.  6.4 Adding denselayers.  6.5 Configuring the | All Members | In Progress |

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|  |  | learning process.  6.6 Training themodel.  6.7 Saving the model.  6.8 Predictions. |  |  |
| 7. | [VIDEO](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse7) [ANALYSIS](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse7) | 7.1 OpenCV for video processing.  7.2 Creating an account in Twilio service. 7.3 Sending alert message. | NAKUL ANAND C | In Progress |
| 8. | [TRAIN](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8) [CNN](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8) [MODEL ON](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8) [IBM](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8) | 8.1 Train image classification model. 8.2 Register for IBM cloud. | NAKUL ANAND C | In Progress |
| 9. | [IDEATION](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse9) [PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse9) | 9.1 Literature Review.  9.2 Empathy map.  9.3 Ideation. | All Members | Completed |
| 10. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10) [DESIGN PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10) [–](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10) [I](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10) | 10.1 Proposed Solution.  10.2 Problem solutionfit. 10.3 Solution  Architecture. | All Members | Completed |
| 11. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse11) [DESIGN PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse11) [-II](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse11) | 11.1 Customerjourney. 11.2 Functional requirement.  11.3 Data flowDiagrams. 11.4 Technology Architecture. | All Members | Completed |
| 12. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse12) [PLANNING PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse12) | 12.1 Preparemilestone and activity list.  12.2 Sprint delivery plan. | All Members | Completed |

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| 13. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse13)  [DEVELOPMENT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse13)  [PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse13) | 13.1 Project development-Delivery of Sprint-1.  13.2 Project development-Delivery of Sprint-2.  13.3 Project development-Delivery of Sprint-3.  13.4 Project development-Delivery of Sprint-4. | All Members | In Progress |