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| <b>Team ID</b>       | <b>PNT2022TMID01211</b>   |
| <b>Project Name</b>  | <b>Emerging Methods For Early Detection Of Forest Fires</b>   |
| <b>Team Size : 4</b> | <b>Team Leader : TEJA YANDAPALLI</b><br><b>Team member : POOJA YANDAPALLI</b><br><b>Team member : YASHIKA.R</b><br><b>Team member : YOGALAKSHMI</b> |

## MILESTONE LIST

| Milestone Name     | Milestone 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 CNN for computer vision 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       |   |

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|--------------------------|------|--|-----|--|
| 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, Applying Image Data Generator Functionality to trainset and testset            | 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,Data flow diagram and Technology Architecture  | Yes |  |
| Project Planning Phase   | M-13 | Prepare Milestone list , Activity list and Sprint Delivery Plan  | Yes |  |
| Project DevelopmentPhase | M-14 | Project Development delivery of Sprint 1, Sprint 2, Sprint 3, Sprint 4   | Yes |  |

# ACTIVITY LIST

| Activity Number | Activity            | Sub Activity  | Assigned To     | Status    |
|-----------------|---------------------|---|-----------------|-----------|
| 1.              | PROJECT OBJECTIVES  |   | All Members     | Completed |
| 2.              | PROJECT FLOW        |   | All Members     | Completed |
| 3.              | PRE-REQUISITES      |   | All Members     | Completed |
| 4.              | DATA COLLECTION     | 4.1 Download the Dataset  | TEJA YANDAPALLI | Completed |
| 5.              | IMAGE PREPROCESSING | 5.1 Import the ImageDataGenerator Library.<br>5.2 Define the Parameters/Arguments for ImageDataGenerator class.<br>5.3 Applying ImageDataGenerator Functionality to trainset and testset. | TEJA YANDAPALLI | Completed |
| 6.              | MODEL BUILDING      | 6.1 Importing the model building libraries.<br>6.2 Initializing the model.<br>6.3 Adding CNN layers.<br>6.4 Adding dense layers.<br>6.5 Configuring the                                   | TEJA YANDAPALLI | Completed |

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|     |                          | learning process.<br>6.6 Training the model.<br>6.7 Saving the model.<br>6.8 Predictions.                           |                 |             |
| 7.  | VIDEO ANALYSIS           | 7.1 OpenCV for video processing.<br>7.2 Creating an account in Twilio service.<br>7.3 Sending alert message.        | TEJA YANDAPALLI | Completed   |
| 8.  | TRAIN CNN MODEL ON IBM   | 8.1 Train image classification model.<br>8.2 Register for IBM cloud.  | TEJA YANDAPALLI | In Progress |
| 9.  | IDEATION PHASE           | 9.1 Literature Review.<br>9.2 Empathy map.<br>9.3 Ideation.   | All Members     | Completed   |
| 10. | PROJECT DESIGN PHASE – I | 10.1 Proposed Solution.<br>10.2 Problem solution fit.<br>10.3 Solution Architecture.                                | All Members     | Completed   |
| 11. | PROJECT DESIGN PHASE -II | 11.1 Customer journey.<br>11.2 Functional requirement.<br>11.3 Data flow Diagrams.<br>11.4 Technology Architecture. | All Members     | Completed   |
| 12. | PROJECT PLANNING PHASE   | 12.1 Prepare milestone and activity list.<br>12.2 Sprint delivery plan.   | All Members     | In Progress |

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| 13. | PROJECT<br>DEVELOPMENT<br>PHASE | 13.1 Project<br>development-Delivery of<br>Sprint-1.<br>13.2 Project<br>development-Delivery of<br>Sprint-2.<br>13.3 Project<br>development-Delivery of<br>Sprint-3.<br>13.4 Project<br>development-Delivery of<br>Sprint-4. | All Members | In Progress |
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