

## Project Planning Phase

### Milestones & Tasks

Date	31 October 2022
Team ID	PNT2022TMID32928
Project Name	Project - Emerging Methods for Early Detection of Forest Fires

### MILESTONE LIST

Milestone Name	Milestone Number	Description	Mandatory
Project Objectives	M-01	We will be able to learn to prepare dataset, image processing,image classification using CNN layers, activation functions used,read images using OpenCV and CNN for computer vision AI	Yes
Project Flow	M-02	A project flow consists of where the user interacts with a web camera to read the video.Once the input image from the video frame is sent to the model, if the fire is detected it is showcased on the console, an alerting sound will be generated and an alert message will be sent to the Authorities.	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	For this project,we should have knowledge on the Supervised Learning, CNN and Regression & Clustering,Artificial Neural Networks	Yes
Data collection	M-05	In Convolutional Neural Networks, as it deals with images, we need training and testing data set.We can collect dataset from different open sources like kggle.com etc.	Yes
Image Preprocessing	M-06	Importing the Image Data Generator libraries, Define Parameters/Arguments for Image Data Generator class, Applying Image Data Generator Functionality to train set and test set	Yes
Model Building	M-07	Model building includes 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	Open cv for video processing, creating an account in twillo 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 PlanningPhase	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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## ACTIVITY LIST

Activity Number	Activity	Sub Activity	Assigned Team Members	Status
1	PROJECT OBJECTIVES		Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
2	PROJECT FLOW		Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
3	PRE-REQUISITES		Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
4	DATA COLLECTION	4.1 Download the Dataset	Soundharya.P Ramji.S	Completed
5	IMAGE PREPROCESSING	5.1 Import Image Data Generator Library. 5.2 Define the Parameters/ Arguments for Image Data Generator class. 5.3 Applying Image Data Generator	Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed

		Functionality to train set and test set.		
<b>6</b>	MODEL BUILDING	6.1 Importing the model building libraries. 6.2 Initializing the model. 6.3 Adding CNN layers. 6.4 Adding dense layers. 6.5 Configuring the learning process 6.6 Training the model. 6.7 Saving the model. 6.8 Predictions.	Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
<b>7</b>	VIDEO ANALYSIS	7.1 OpenCV for video processing. 7.2 Creating an account in Twilio service. 7.3 Sending alert messages.	Nivedha.K Soundharya.P Ramji.S	Completed
<b>8</b>	TRAIN CNN MODEL ON IBM	8.1 Train image classification model.  8.2 Register for IBM cloud.	Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
<b>9</b>	IDEATION PHASE	9.1 Literature Review. 9.2 Empathy map. 9.3 Ideation.	Soundharya.P Ramji.S Sugashini.T	Completed
<b>10</b>	PROJECT DESIGN PHASE – I	10.1 Proposed Solution. 10.2 Problem solution. 10.3 Solution Architecture	Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed

<b>11</b>	PROJECT DESIGN PHASE -II	11.1 Customer journey. 11.2 Functional requirement. 11.3 Data flow Diagrams. 11.4 Technology Architecture.	Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
<b>12</b>	PROJECT PLANNING PHASE	12.1 Prepare milestone and activity list 12.2 Sprint delivery plan.	Nivedha.K Soundharya.P Ramji.S Sugashini.T	Completed
<b>13</b>	PROJECT DEVELOPMENT PHASE	13.1 Project development-Delivery ofSprint-1. 13.2 Project development-Delivery ofSprint-2. 13.3 Project development -Delivery of Sprint-3 13.4 Project development-Delivery of Sprint-4.	Nivedha.K Soundharya.P Ramji.S Sugashini.T	In-Progress