

<b>Date</b>	<b>22 October 2022</b>
<b>Team ID</b>	<b>PNT2022TMID13036</b>
<b>Project Name</b>	<b>Emerging Methods for Early Detection of Forest Fires</b>

## MILESTONE LIST

<b>Milestone Name</b>	<b>Milestone Number</b>	<b>Description</b>	<b>Mandatory</b>
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
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 ImageData 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	Open cv 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, Solution Architecture	Yes
Project Design Phase II	M-12	Prepare Customer journey, functional requirements, Dataflowdiagram and Technology Architecture	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

### ACTIVITY LIST

Activity Number	Activity	Sub Activity	Status
1.	PROJECT OBJECTIVES		Completed
2.	PROJECT FLOW		Completed
3.	PRE-REQUISITES		Completed
4.	DATA COLLECTION	4.1 Download theDataset	Completed
5.	IMAGE PREPROCESSING	5.1 Import ImageDataGeneratorLibrary. 5.2 Define the Parameters/ Arguments for ImageDataGeneratorclass. 5.3 Applying ImageDataGenerator Functionality totrainset and test set.	In Progress

6.	MODEL BUILDING	6.1 Importing the modelbuilding 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.	In Progress
7.	VIDEO ANALYSIS	7.1 OpenCV for video processing. 7.2 Creating an accountin Twilio service. 7.3 Sending alertmessage.	In Progress
8.	TRAIN CNN MODELON IBM	8.1 Train image classification model. 8.2 Register for IBMcloud.	In Progress
9.	IDEATION PHASE	9.1 Literature Review. 9.2 Empathy map. 9.3 Ideation.	Completed
10.	PROJECT DESIGNPHASE – I	10.1 Proposed Solution. 10.2 Problem solution. 10.3 Solution Architecture	Completed
11.	PROJECT DESIGNPHASE -II	11.1 Customer journey. 11.2 Functional requirement. 11.3 Data flow Diagrams. 11.4 TechnologyArchitecture.	Completed
12.	PROJECT PLANNINGPHASE	12.1 Prepare milestone and activity list 12.2 Sprint delivery plan.	Completed
13.	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 ofSprint-4.	In Progress