C2022TMID32813
rging Methods for Early Detection of Forest Fires
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## **MILESTONE LIST**

Milestone Name	Mileston	Description	Mandatory	
	e Number			
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, Applying Image 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	Opency 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 Technology Architecture	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	

## **ACTIVITY LIST**

<b>Activity Number</b>	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	SUDHARSHAN	Completed
5.	IMAGE PREPROCESSING	5.1 Import the ImageDataGenerator Library. 5.2 Define the Parameters/Arguments for ImageDataGenerator class. 5.3 Applying ImageDataGenerator Functionality to trainset and testset.	All Members	In Progress
6.	MODEL BUILDING	<ul><li>6.1 Importing the model building libraries.</li><li>6.2 Initializing the model.</li><li>6.3 Adding CNN layers.</li><li>6.4 Adding dense layers.</li><li>6.5 Configuring the</li></ul>	All Members	In Progress

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

13.	PROJECT DEVELOPMENT PHASE	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
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