| Team ID | PNT2022TMID06675 | |
|--------------|---|--|
| Project Name | Emerging Methods for Early Detection of Forest Fires | |
| Team members | NIVETHA S PAVITHRA V MANJU MITHRA M SHARUHASINI P | |

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 | |
| 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 Image Data Generator libraries, Define Parameters/Arguments for Image Data Generator 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 | 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 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

| Activity Number | Activity | Sub Activity | Assigned To | Status |
|-----------------|--------------------|--------------|---------------------------------|-----------|
| 1. | PROJECT OBJECTIVES | | MANJU MITHRA M SHARUHASINI P | Completed |

| 2. | PROJECT FLOW | | All Members | Completed |
|----|------------------------|--|------------------------------|-------------|
| 3. | PRE-REQUISITES | | All Members | Completed |
| 4. | PRIOR KNOWLEDGE | | All Members | Completed |
| 5. | DATA COLLECTION | 4.1 Download the Dataset | MANJU MITHRA M PAVITHRA V | Completed |
| 6. | IMAGE PREPROCESSING | 5.1 Import the Image Data Generator Library. 5.2 Define the Parameters/Arguments for Image Data Generator class. 5.3 Applying Image Data Generator Functionality to trainset and test set. | All Members | Completed |
| 7. | 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 | All Members | In Progress |

| 8. | VIDEO ANALYSIS | 7.1 Open CV for video processing.7.2 Creating an account in Twilio service.7.3 Sending alert message. | All Members | In Progress |
|-----|-----------------------------|---|-------------|-------------|
| 9. | TRAIN CNN MODEL ON IBM | 8.1 Time image classification model.8.2 Register for IBM cloud. | All Members | In Progress |
| 10. | IDEATION PHASE | 9.1 Literature Review.9.2 Empathy map.9.3 Ideation. | All Members | Completed |
| 11. | PROJECT DESIGN PHASE – I | 10.1 Proposed Solution. 10.2 Problem solution fit. 10.3 Solution Architecture. | All Members | Completed |
| 12. | PROJECT DESIGN PHASE -II | 11.1 Customer journey. 11.2 Functional requirement. 11.3 Data flow Diagrams. 11.4 Technology Architecture. | All Members | Completed |
| 13. | PROJECT PLANNING PHASE | 12.1 Prepare milestone and activity list. 12.2 Sprint delivery plan. | All Members | Completed |

| 14. | 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 |
|-----|---------------------------------|---|-------------|-------------|
|-----|---------------------------------|---|-------------|-------------|