Project Design Phase-I

Proposed Solution

Date	27 NOVEMBER 2022
Team ID	PNT2022TMID45772
Project Name	Natural Disasters Intensity Analysis And Classification Using Artificial Intelligence
Maximum Marks	2 Marks

Proposed Solution for the Problem Statement:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To Classify and analyze the intensity of natural disasters before and after hand to alert and protect livelihood and its associated factors.
2.	Idea / Solution description	To develop a multi-layered deep convolutional neural network model that classifies the natural disaster and tells the intensity of disaster. An integrated webcam is used to capture the video frame and the video frame is compared with the pre-trained model. The type of disaster is identified and showcased on the OpenCV window.
3.	Novelty / Uniqueness	A web app interface to feed live video stream or recorded content to identify the intensity level of the disaster at a particular location and an alerting system.
4.	Social Impact / Customer Satisfaction	Continuous monitoring service and accurate detection of the natural disaster with an alerting system based on the level of intensity reduces damage done to livelihood and economy.
5.	Business Model (Revenue Model)	A lightweight,robust and portable prototype with accurate, reliable and advanced analysis of a natural disaster with Multi-Layer CNN at its heart. Includes a Web-cam that detects complex and imbalanced structures of images which is then compared with the pre-trained model and the type of disaster is identified.
6.	Scalability of the Solution	The model prototype can be extended to private and government forecast organisations which can help in global recognition, due to its robustness and portability.