

### MileStones-Project Objectives

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| Date         | 18 October 2022   |
| Team ID      | PNT2022TMID18498  |
| Project Name | Project – Natural Disasters Intensity Analysis and Classification Using Artificial Intelligence |

Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision. When using AI to detect extreme events such as avalanches or earthquakes, the availability of data can be a limiting factor. The project mainly classifies the type of Natural Disaster and the intensity by giving an image through the webcam. Natural disasters not only disturb the human ecological system but also destroy the properties and critical infrastructures of human societies and even lead to permanent change in the ecosystem. Disaster can be caused by naturally occurring events such as earthquakes, cyclones, floods, and wildfires. Many deep learning techniques have been applied by various researchers to detect and classify natural disasters to overcome losses in ecosystems, but detection of natural disasters still faces issues due to the complex and imbalanced structures of images. To tackle this problem, we developed a multilayered deep convolutional neural network model that classifies the natural disaster and tells the intensity of disaster of natural. The model uses an integrated webcam to capture the video frame and the video frame is compared with the Pre-trained model and the type of disaster is identified and showcased on the OpenCV window.

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