1

**Problem Statement**

Natural disaster impacts the human ecological system and also destroys the properties and the infrastructures of human societies and may permanently change the ecosystem. Detection of natural disasters still faces issues due to the complex and imbalanced structures of images. Thus how do we classify the natural disaster and find the intensity of the natural disasters?

2

# Brainstorm

3

# Group Ideas

4

# Prioritize



**Solution for imbalanced ecosystem (MANAGEMENT)**

**Variation in Seismic sensors and vibration sensors (PREDICTION)**

**K.Vignesh**

**Post disaster requirements (MANAGEMENT)**

**Changes in the environment (PREDICTION)**

**Rescue operations (MANAGEMENT)**

**Finding the destructive agents**

**Classification of the natural disaster**

|  |  |  |
| --- | --- | --- |
| Destructive agents | Structural damage | Disaster cycle |
| Occurrence of disasters | Collecting images | Usage of Smart technology |
| Post disaster scenario | Feature extraction | Unpredictable events |

**M.MadhanKumar**

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| --- | --- | --- |
| Automatic natural disaster detection | Satellite images of disasters | Aerial images |
|  | Social media |  |
|  |  |  |
|  |  |  |
|  | set |  |
|  | Apply |  |
| Real calamities | filters to smoothen the | Convolutional neural networks |
|  | images |  |

**M.VijayBharat**

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| --- | --- | --- |
| Virtual dataset | Description of parameters | Preprocessed data |
| Multilayered deep convolutional neural network | Accuracy | Training process |
| Predict future disasters | Research results | Scope of application |

**N.Manoj**

## 

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| --- | --- | --- |
| Scientific accomplishment | Common tasks and their solutions | Information Science and Technology |
| Filters and parameters | Rescue operations | Economically and financially affects nations |
| Machine learning technique | Action against heavy loss of human ecological system | Validation |

**Destructive agents (ANALYSIS)**

**Classification of disaster (ANALYSIS)**

**Image collection (ANALYSIS)**

**Cause of disaster (ANALYSIS)**

**Unusual rise and fall in temperature (PREDICTION)**

**Obtaining proper structure of the images**

**Finding the intensity**

**of the natural disaster**

**Analysing the impact in the environment**

**Comparing the images with the pre- trained model**

**Feasibility**

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)