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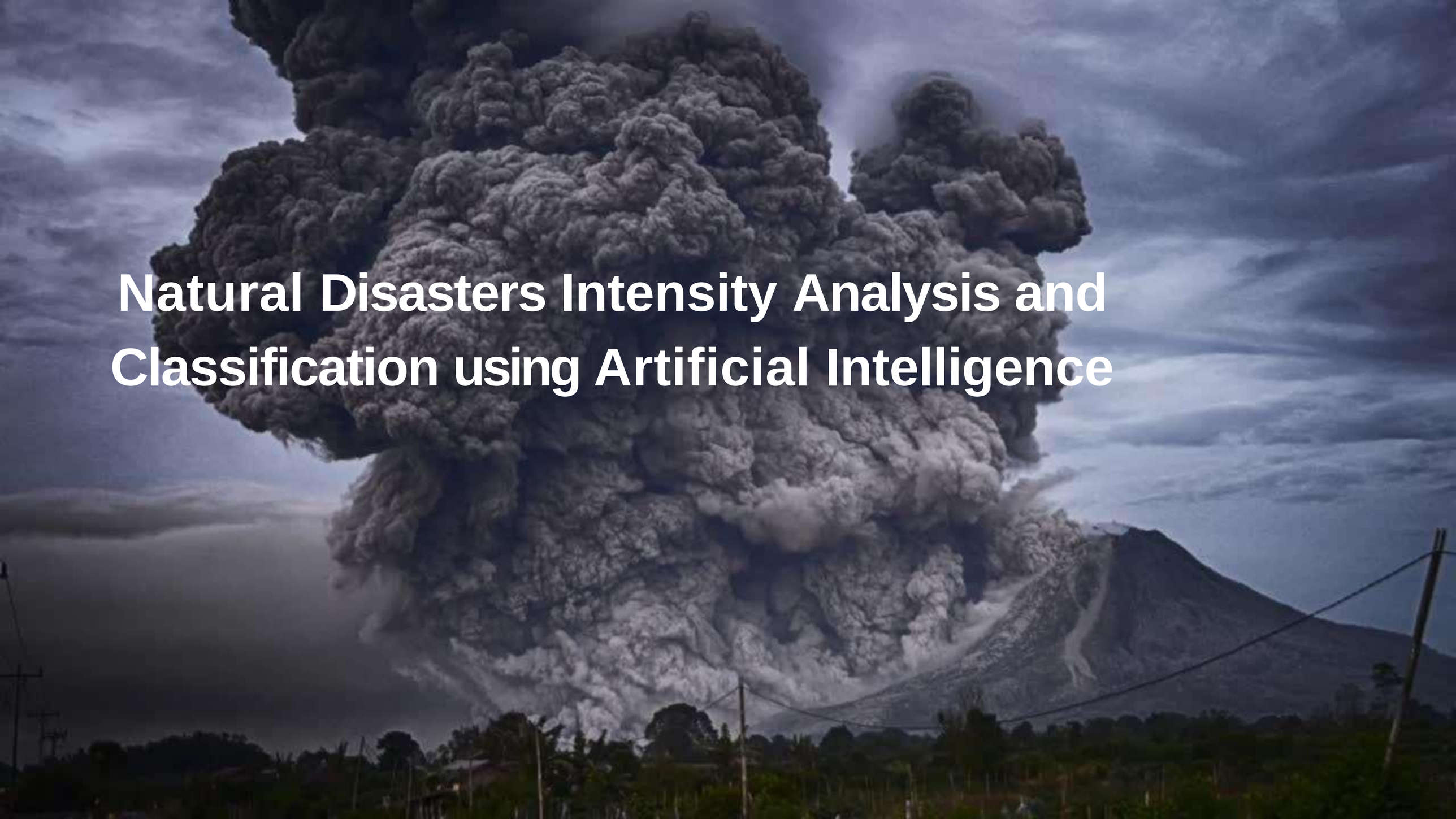
COURSE NAME:ARTIFICIAL INTELLIGENCE
PROJECT:NATURAL DISASTERS INTENSITY ANALYSIS AND CLASSIFICATION USING AI



Natural Disasters Intensity Analysis and Classification using Artificial Intelligence

Synopsis

01	02	03
• Introduction • Objectives	• Proposed Methodology • Advantages and Disadvantages	• Future scope • Conclusion

Part 1:

Introduction

- Natural catastrophes not only disrupt the ecology that supports human life, but they also obliterate vital facilities and properties in human society
- To mitigate ecological losses from natural disasters, several deep learning approaches have been used by numerous researchers
- **We created a multilayered deep convolutional neural network model that identifies natural disasters and indicates their intensity in order to address this issue.**

Objectives

The objectives of disaster management are:

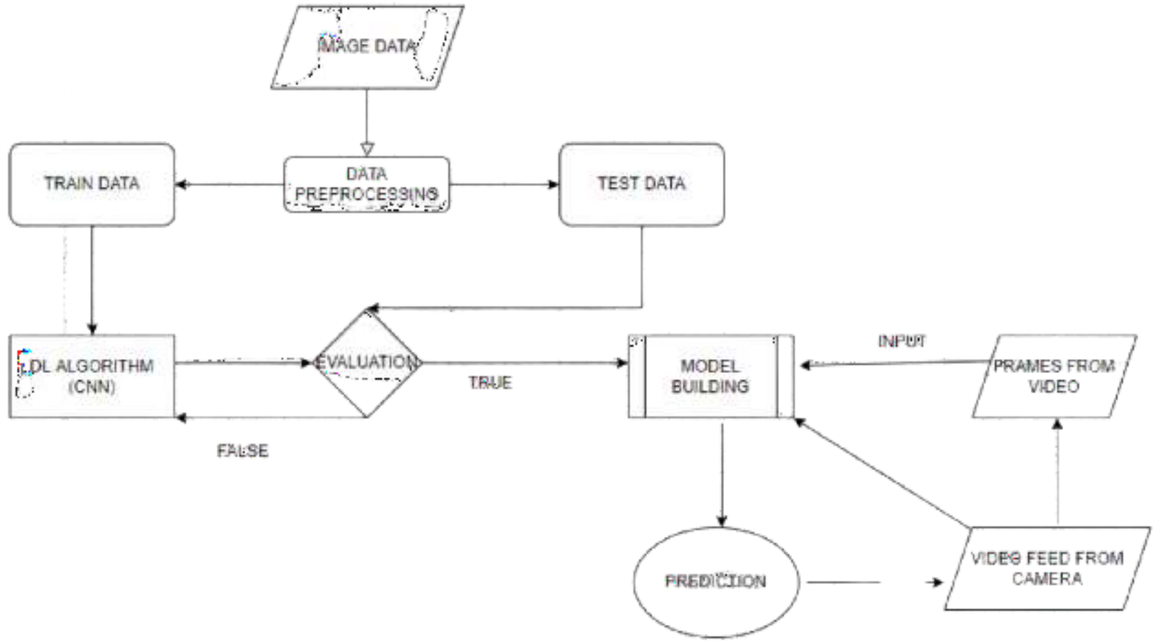
- Supply of essential commodities and rehabilitation of disaster victims
- Protective measures to reduce the intensity of future disasters.
- Rescue of victims by the event and disposal of losses suffered.

To prevent ecological losses from natural disasters, as we all know that “Prevention is better than cure”.

Part 2:

Proposed Methodology

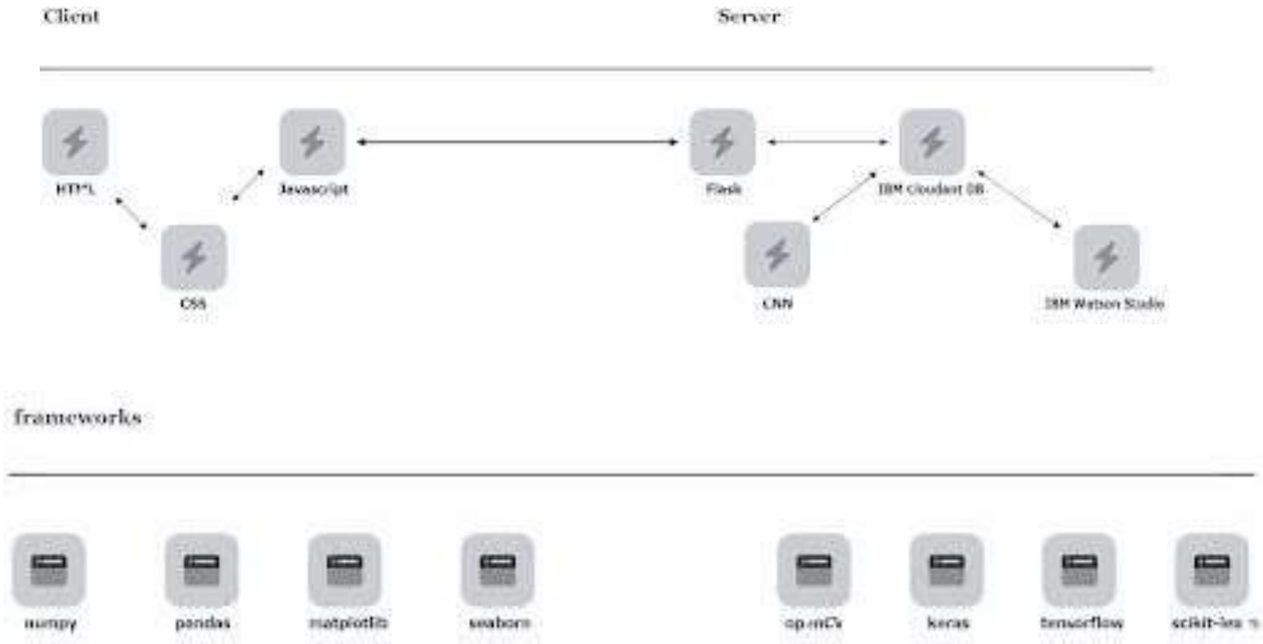
Data flow diagram



1. Collection of Dataset
2. Data pre-processing
3. Applying algorithm
4. Train the algorithm
5. Test the model
6. Deployment

Solution & Technical architecture

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To classify the natural disaster and calculate the intensity of the disaster.
2.	Idea / Solution description	To develop a multilayered deep convolutional neural network model that classifies the natural disaster and tells the intensity of disaster.
3.	Novelty / Uniqueness	We are implementing neural networks to train our model instead using machine learning algorithms which expected to provide with better accuracy.
4.	Social Impact / Customer Satisfaction	With better accuracy in predicting intensities precautions are taken respectively.
5.	Business Model (Revenue Model)	The software is cheap, and the minimum requirements are affordable.
6.	Scalability of the Solution	Better accuracy in measuring the intensities of the natural disaster and in classifying it.



Advantages

AI can operate continuously without rest

With AI-based methods, we can predict the weather for the present day and the coming days

Their alert temperament allows them to react quickly and effectively

Disdvantages

Getting outfitted costs a lot of money

Robots are one use of artificial intelligence that is replacing jobs and raising unemployment

Machines can only do jobs for which they are created for; if they are asked to complete anything else, they frequently fail or produce useless results,

Part 3:

Future scope

Google's pilot effort in Patna, India, to use artificial intelligence to monitor floods, was a success last year.

To forecast the flow of water, they performed hundreds of thousands of simulations using its machine learning (ML) models.

By using AI, disaster management organizations can deploy robots, sensors, and drones in the future to offer precise information on damaged structures and landscapes, impending floods, and safer rescue missions.

Part 4:

Conclusion

01 Numerous researchers have tried to detect natural disasters using various deep learning techniques

02 Deep learning algorithms for natural disaster detection still have a number of concerns with noise and severe class imbalances

03 We suggested a multilayered deep convolutional neural network for natural disaster identification and intensity classification to overcome these issues

Progress

- Project Objectives
- Project Flow
- Project Structure
- Assignments
- Prerequisites
- Prior Knowledge
- Collection of Data set
- Image Preprocessing
- Collection of Data set
- Image Preprocessing
- Model Building
- Application Building
- Train the Model on IBM
  Ideation Phase
- Project Design and Planning
- Project Development Phase


Thank You
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