Date	**17November 2022**
Team id	PNT2022TMID43911
Project Name	**Natural Disasters Intensity Analysis And Classification using Artificial Intelligence**
Marks	**2 Marks**

OBJECTIVES

Artificial intelligence (AI) models have shown remarkable success and superiority to handle huge and nonlinear data owing to their higher accuracy and efficiency, making them perfect tools for disaster monitoring and management.

When using AI to detect extreme events such as avalanches or earthquakes, the availability of data can be a limiting factor. **AI-based methods can be very effective if a training dataset covers very large events**. However, the availability of such data is limited because of the rarity of these events.

The objectives of disaster management are:

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

Disaster management aims to **reduce, or avoid, the potential losses from hazards, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and effective recovery**. Artificial intelligence (AI), in particular machine learning (ML), is playing an increasingly important role in disaster risk reduction (DRR) – from **the forecasting of extreme events and the development of hazard maps to the detection of events in real time, the provision of situational awareness and decision support.**

- Improve the understanding of disaster risk, hazards, and vulnerabilities
- Strengthen disaster risk governance at all levels from local to centre
- Invest in disaster risk reduction for resilience through structural, nonstructural and financial measures, as well as comprehensive capacity development
- Enhance disaster preparedness for effective response
- Promote “Build Back Better” in recovery, rehabilitation and reconstruction

- Prevent disasters and achieve substantial reduction of disaster risk and losses in lives, livelihoods, health, and assets (economic, physical, social, cultural and environmental)
- Increase resilience and prevent the emergence of new disaster risks and reduce the existing

risks • Promote the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures to prevent and reduce hazard exposure and vulnerabilities to disaster

- Empower both local authorities and communities as partners to reduce and manage disaster risks
- Strengthen scientific and technical capabilities in all aspects of disaster management