NATURAL DISASTERS INTENSITY AND ANALYSIS AND CLASSIFICATION USING ARTIFICIAL INTELLIGENCE

1.ABSTRACT:

There habeen an unsettling rise in the intensity and frequency of natural disasters due to climate change and anthropogenic activities. 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 management. A risk analysis of natural disasters is helpful not only for disaster prevention and reduction, but also reducing economic and social losses .The main focus of this paper is the novel use of Artificial Intelligence(AI) in natural disaster, on the development and application of analysis modules used in early loss estimation system of prevention and reduction of human and social impact, what the project we taken "NATURAL DISASTER INTENSITY AND ANALYSIS AND CLASSIFICATION USING ARTIFICAL INTELLIGENCE".

2.INTRODUCTION:

Natural disasters are inevitable, and the occurrence of disasters dramatically affects the economy and human life. Buildings collapse, ailments spread and sometimes natural disasters such as tsunamis, Earthquakes and forest fires can devastate nations. When earthquakes occur millions of Buildings collapse due to seismological efforts. Floods are the most devastating natural disaster, damaging the properties human lives and infrastructures. Disasters such as forest fires spread rapidly in dense areas so fire fighting is difficult to carry out, in this case development of the strategy to predict such circumstances is crucial so that such disaster can be prevented beforehand. As the technology are continuously improving in aviation system have begun adapting smart technologies to develop unmanned aerial vehicles (UAVS), equipped with cameras which can reach distant areas to identify after effect of natural disasters on human life infrastructure and transmission lines by capture images and videos.

3.LITERACTURE SURVEY:

PAPER 1:

“Disaster intensity-based selection of training samples for remote sensing building damage classification”

-By Luis Moya, Masakazu Hashimoto, Erick mas

This paper is said that machine learning has become a dominant data processing paradigm for the extraction of information from remote sensing data, have been used to better cope with the severe and often catastrophic

impacts of disasters

PAPER 2:

"Natural disasters intensity analysis and classification based on multispectral images using multi -layered deep convolutional neural network"

-By Muhammad Aamir, Tariq Ali

This paper is based on deep learning is used to detect and classify natural disasters to overcome losses in ecosystem, but detection of natural disasters still faces issues due to the complex and imbalanced structure of images. To tackle this problem, we propose a multi-layered deep convolutional neural network.

PAPER 3:

"Using AI to predict natural disasters for future predication"

-By Seth Guikema

This paper shows the Artificial intelligence (AI)methods have been seen increasingly widespread use in everything. The use of AI has transformed many of these application domains.AI can predict earthquakes, land slide, floods.

PAPER 4:

"An IOT based post disaster alive human detection and alert system"

-By Gracelie G.Parisuthakani

This paper proposes on IoT (Internet of Things)based post disaster alive human detection and alert system which is less time consuming and more efficient. The IoT based post disaster alive human detection system and alert system works with the help of D6T thermal sensors interfaced with Arduino uno and raspberry pi 3 micro-controllers and the location coordinates are given by GPS Module. Its offers IoT module for disaster management which spontaneously post disaster handles the alive human longing to be rescued.