PROBLEM STATEMENTS

1. changes In the environment. According to global statistics, natural disasters are increasing in strength and frequency. Shifting weather patterns make predictions and emergency planning difficult. To make matters worse, populations in vulnerable coastal areas and urban centers have spiked in the past decade, increasing the overall destruction of each disaster.
2. Urban centers are becoming more populated, particularly in geographically vulnerable areas such as coastlines. Dense populations create greater strain on infrastructure and first response networks during and after a natural disaster.
3. The major challenges associated with disaster response planning are the failure in strictly applying the law, the lack of public and staff education about disaster risks, poor urban planning, unstable security situation, citizen intervention, endowment of equipment, tools and infrastructure and lack of financial …
4. Artificial Intelligence offers a better structure by ratifying large sets of data from various sources. Hence, the data is transformed Into information to serve future calamities and disasters.

5. AI has given rise to drones, robots, and sensors to provide intelligent and accurate information about disaster-prone areas. Hence, rescue workers and first responders can comprehend the severity of a natural calamity. Therefore, drones and sensor technologies can also locate victims and help rescuers reach them quickly.
6. Using satellite images and weather forecasts the AI algorithms couldInstantaneously assess flooding, building and road damages so that the Rescuers can distribute more effectively and the peoples in danger can be protected.
7. By employing digital signal processing techniques we can analyse Sound recordings of underwater earthquakes that train AI algorithms to Classify the type of earthquake and its moment magnitude which can be A significant step for a reliable tsunami warning system.
8. During earthquake the energy provided by the ground motion to the Building can be minimized by using seismic dampers which are special Devices so that the buildings absorb the energy provided by the ground Motion.

9. The use of neural networks a system of artificial neurons that mimicn The computation of human brain, empowering the model to make Predictions in natural disasters.
10. By using dense network of sensors we can monitorand detect.