


Earthquake Prediction Model

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Problem Statement

- To create a model for the task of Earthquake Prediction Model using machine learning and the python programming language Predicting earthquake is one of the great unsolved problems in the earth  science
- So we can use machine learning and other data -driven methods to predict earthquakes

Project sketch

The objective of the project will be to develop machine learning methods

- ML-based methods have a higher chance of Predicting earthquake accurately because of their high accuracy
- The main aim to predict the magnitude and probability of earthquake occurring in a particular region using the historic data with various machine learning models to find which model is more accurate

Techniques for Earthquake Prediction

- Animal behavior
- Dilatancy -diffusion
- Changes in VP/Vs
- Radon emissions
- Electromagnetic anomalies
- Nowcasting
- Elastic rebound
- Characteristics earthquakes

Option:	If Quake:	If No Quake:
	Alarm	False alarm: cost of alarm, panic and economic disruption. Multiple instances? but increases the cost of false alarms.
The Bar Lowering the bar..	Great losses, mitigated by preparations (cost of alarm incidental).	
No Alarm	Great losses, worsened by being caught off-guard.	Normal: no losses, no disruption, no cost of alarm.

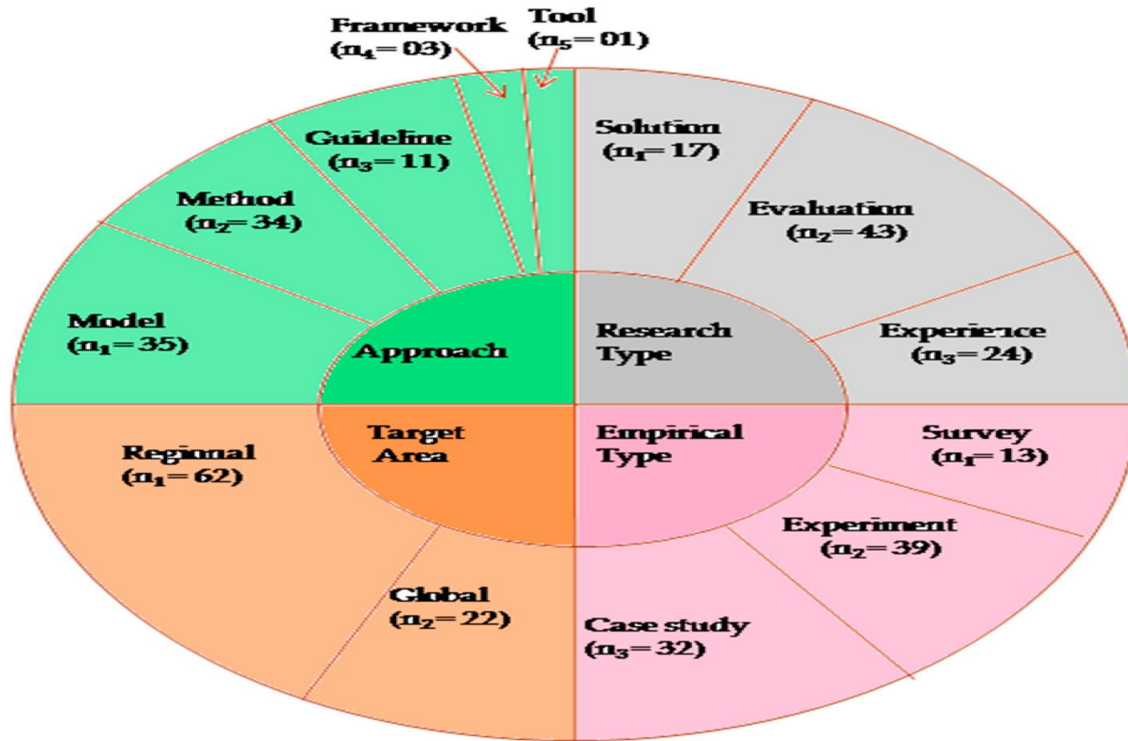
Design for Model

- Machine learning can predict lab quakes using fault Zone acoustic emissions(AE) .
- Deep learning (DL) methods allow labquakes prediction and autoregressive (AR) forecasting .
- The autoregressive methods are novel and allow forecasting at future horizons shear stress .
- A seismometer is the internal part of the seismograph ,which may be a pendulum or a mass mounted on a spring
- Seismograph are instruments used to record the motion of the ground during an Earthquake □

Problem Definition

- Earthquake Prediction is a branch of the science of seismology concerned with the specification of the time , location, and Magnitude of future earthquakes within states limits, and particularly “The determination of parameters for the next strong earthquake to occur in a region “
- Earthquake Prediction is sometimes distinguished from [earthquake forecasting](#) which can be defined as the probabilistic assessment of general earthquake hazard , including the frequency and Magnitude of damaging earthquakes in a given area over years or decades
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Earthquake Prediction piechart



Earthquake Prediction Using AI or Deep learning



Conclusion::

- We conclude that from our project are the strength and weekness of the model .we will showcase the models performance using piechart ,graph and so on... to highlight their predictive capabilities
- Thank you