PROJECT

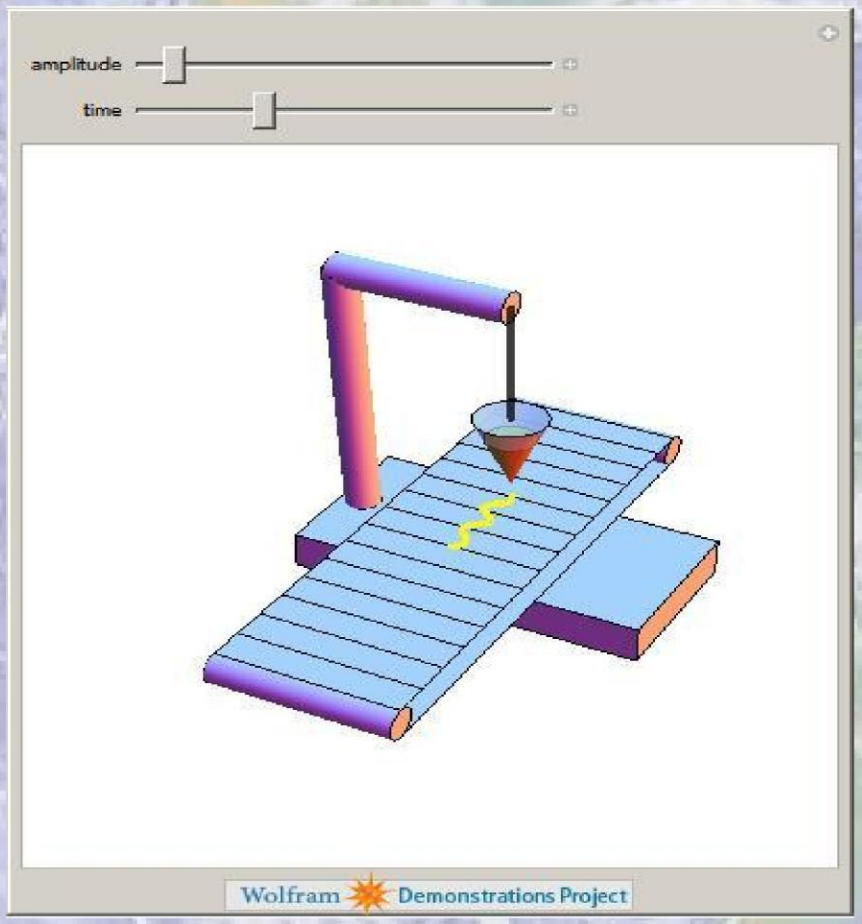
ON

EARTHQUAKE DETECTOR

- An earthquake is a sudden movement of the earth's surface.
- Earthquakes are caused by the movement of the earth's tectonic plates.
- Earthquakes occur where the earth's plates meet along plate boundaries. For example as two plates move towards each other, one can be pushed down under the other one into the mantle.

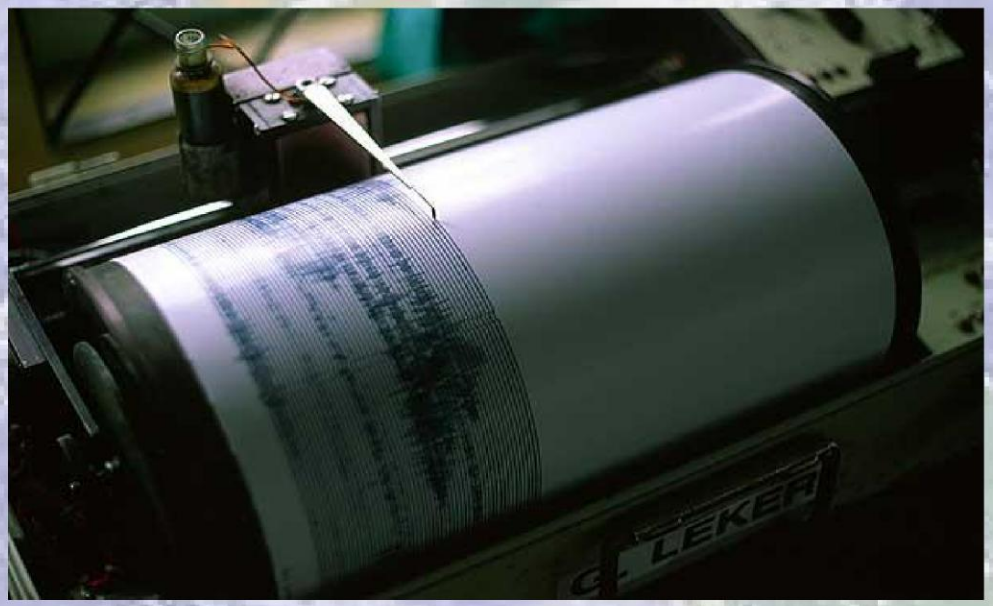
- If this plate gets stuck it causes a lot of pressure on surrounding rocks. When this pressure is released it produces shock waves.
- These are called seismic waves. This is an earthquake..

EARLIER INSTRUMENT FOR MEASURING EARTHQUAKE

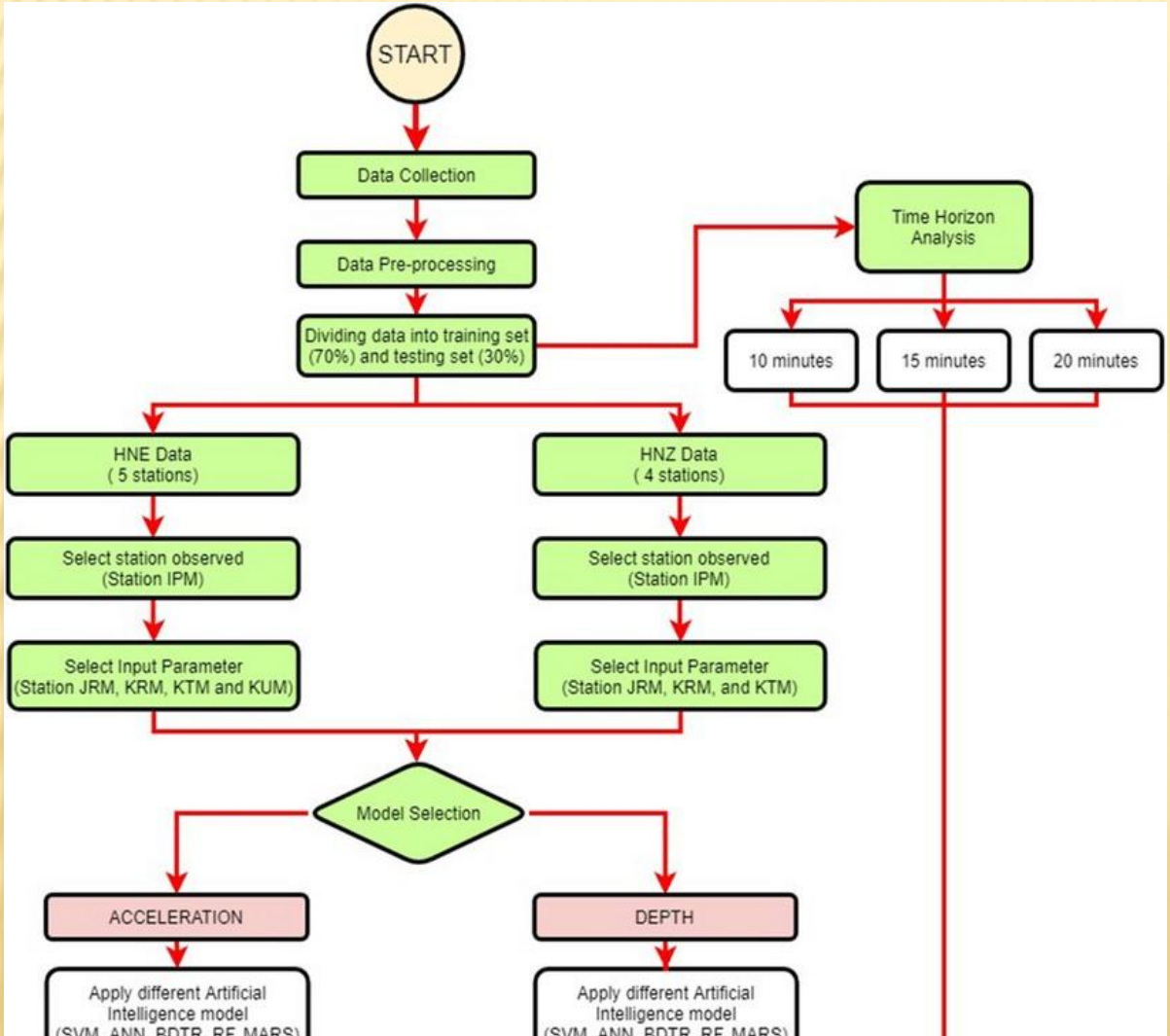


- A seismoscope is an instrument used to measure vibrations of the earth's crust. Generally, scientists use these readings to predict when an earthquake will strike.

SEISMOGRAPHS



- A seismograph is a device that measures earthquakes. IT works on the principle of inertia of rest, when the earth shakes then the pen of the seismograph due to its inertia of rest starts to shake with the shaking of earth and makes the records. the intensity of the earth quake is measured by a scale called Richter scale..


START
Data Collection
Data Pre-processing
Dividing data into training set (70%) and testing set (30%)
Time Horizon Analysis
10 minutes
15 minutes
20 minutes
HNE Data (5 stations)
HNZ Data (4 stations)
Select station observed (Station IPM)
Select station observed (Station IPM)
Select Input Parameter (Station JRM, KRM, KTM and KUM)
Select Input Parameter (Station JRM, KRM, and KTM)
Model Selection
ACCELERATION
DEPTH
Apply different Artificial Intelligence model
Apply different Artificial Intelligence model

RECENT INNOVATION BY USA

Quake Alarm™

EARTHQUAKE DETECTOR

For: Homes, offices and school classrooms
Model # QA-2000
6" high x 3" wide x 1-1/4" deep
Provides early warning by detecting an earthquake's sound wave before the earthquake's destructive effect .
It usually detected before an hour of occurrence.