



SEEWS

A background image of a seismograph with a pen writing on a grid, showing seismic wave patterns.

SEEWS

SMART EARTHQUAKE EARLY
WARNING SYSTEM





SMART EARTHQUAKE EARLY WARNING SYSTEM

Stop before the earth moves!

About Product

Earthquake early warning system is a model to provide warnings/alarms to nearby locations before the arrival of strongest shake. SEEWS is an intelligent system that can predict the scale, time, location and likely damages of the impending earthquake.

Features



Predicts the expected intensity



Estimates the magnitude of the earthquake



Issues early warning system



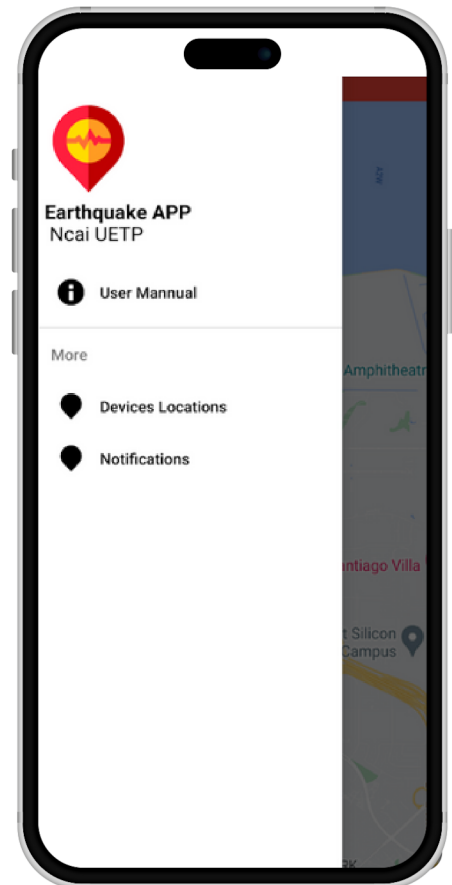
Creates a real time map of the areas that will be affected

Web Dashboard

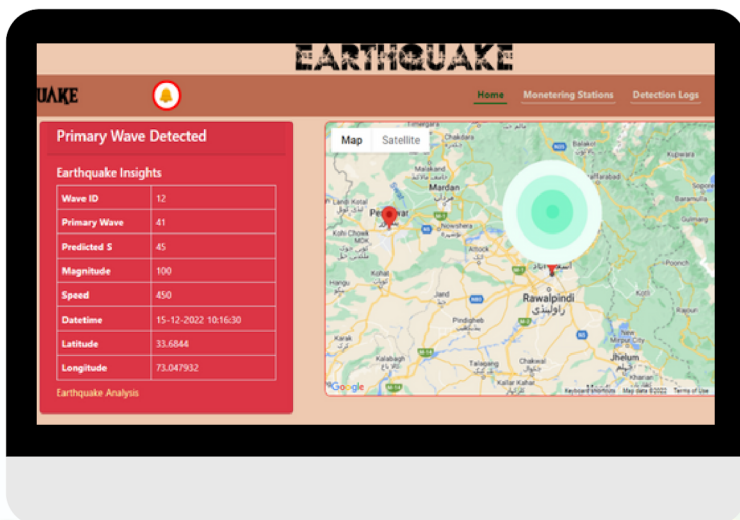
The database system receives data from webserver; whenever it generates an alert to the clients it also requests the database server to save the data, the database server takes the data and saves it.

Analysed Parameters:

- Primary Wave
- Magnitude
- Speed
- Location
- Time



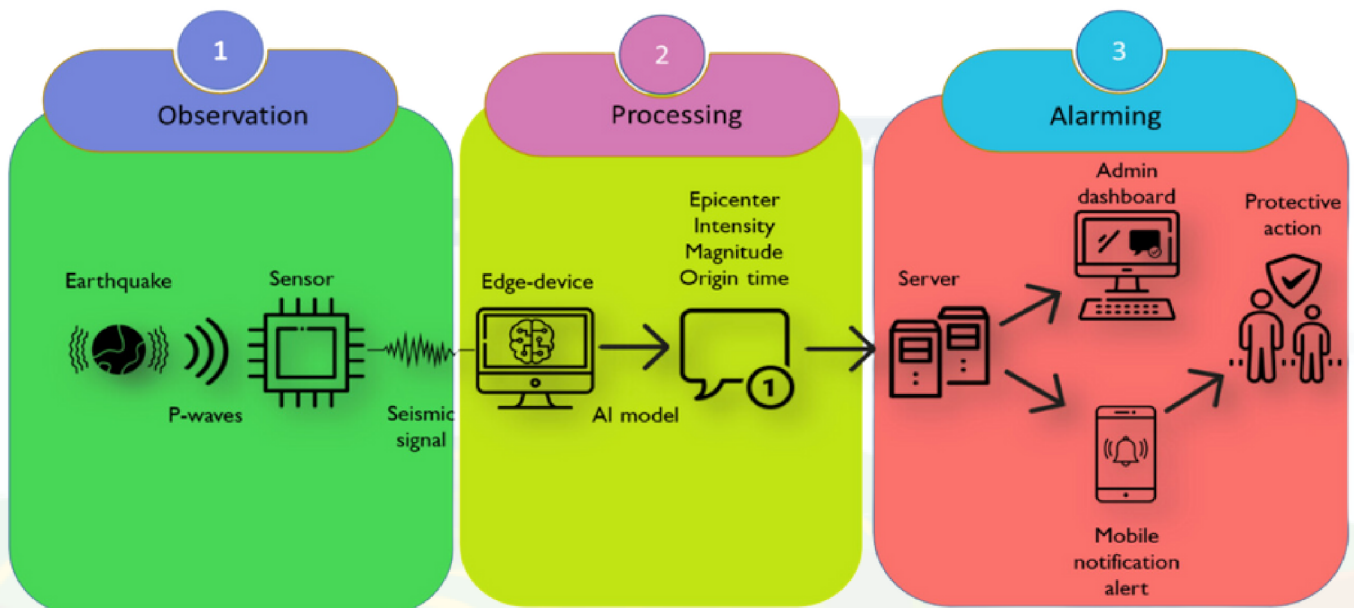
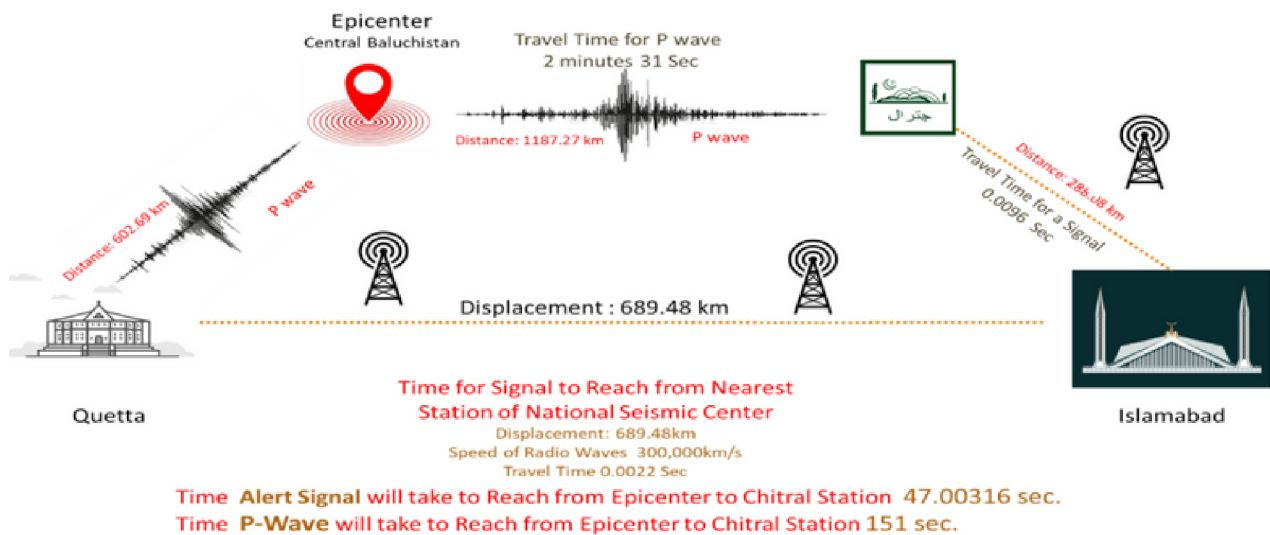
Mobile App



Web Server

System Architecture

Our system consists of three major components. Observation, processing, and alarming or dissemination. In the first part, earthquake is sensed through the seismometers, in the second part edge device is used to detect the earthquake using AI model. In the last, the database disseminates the information through servers to web or mobile applications.



Impacts

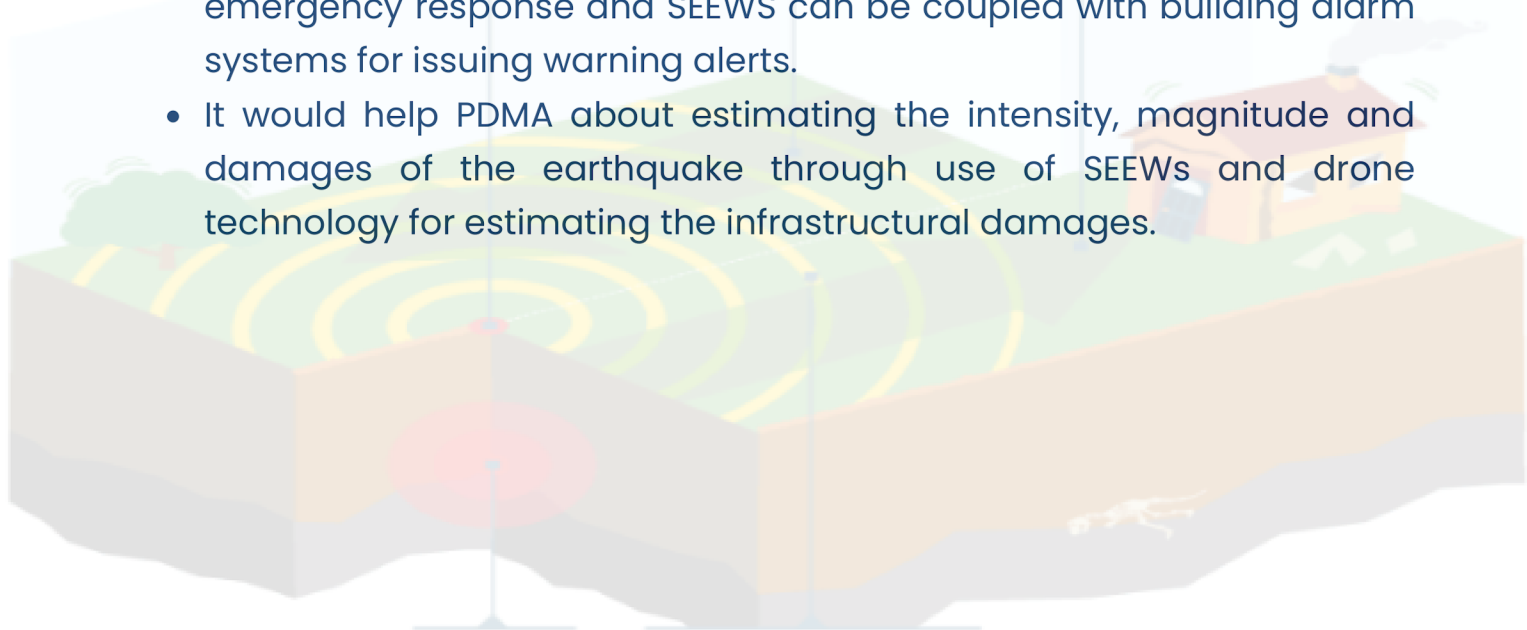
- Seismic monitoring plays important role in hazard assessment.
- Ground motion prediction model helping earthquake engineering.
- Location tracking in urban regions facing earthquake at high frequency.
- Development of models that predict the level of the ground motion of future earthquakes.
- The statistical data obtained through experiments can be helpful in designing buildings and societies.

Environmental Benefits

Since the S-EEWS predicts and communicates the warning of expected earthquake, this can timely notify the gated dam for water release. Thus, reducing damage to surrounding communities and ecosystems.

Socioeconomic Benefits

- S-EEWS strengthens the overall earthquake management, it enables preparedness, response and recovery.
- It mitigates the infrastructure damages resulting from earthquake by shutting down the moving machinery, vehicles and infrastructure in time.
- In the long run, people would be trained on the evacuation and emergency response and SEEWS can be coupled with building alarm systems for issuing warning alerts.
- It would help PDMA about estimating the intensity, magnitude and damages of the earthquake through use of SEEWS and drone technology for estimating the infrastructural damages.





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IPMCAP is the sole authorised distributor of Smart Earthquake Early Warning System successfully operating nation-wide.

