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Earthquake Detection System using Wireless Sensor Network

Farhan Shaikh[1], Rajkumar Singh[2], Kalpesh Patil[3], Saiteja Murari[4], Prof. S. Ayachit[5]
[1, 2, 3, 4, 5] *Jayawantrao Sawant College of Engineering, Pune*

Abstract: ***Internet Technology bring methods to help detection of earthquake management to collect the data or monitor the condition in real time to analyse the collected data. The Internet of things (IOT) is the network of computed physical objects which enables these things to connect, collect and exchange data. The signal from each sensor which senses the waves and transmitter transfers the alert signal to the cloud. The cloud which will generates alert message transfers the warning to smart phones. Thus, early alert message is received by the people in terms of location, time and other parameters. This will in turn help the people from avoiding major damages to themselves and will help save their lives.***

Keywords: Internet of Things (IoT), Earthquake detection, Vibration Sensor, Cloud, Arduino, Alert Messages.

I. INTRODUCTION.

Earthquake are unpredictable as well as unavoidable natural phenomenon that sometimes causes damage to lives and property. Earthquakes cannot be stopped no matter what we do but we can use the Modern technology to stay alert and be smart and take the action accordingly to avoid the damage, injuries

This project is an early warning system that can detect the earthquake and provide the warning / alert messages before an earthquake occur, even an 40-50 seconds early warning can save many lives. Our system with the help of sensors aims to monitor and detect the seismic waves and then send the early warning messages to the people and hence save them from the disaster that the earthquake would cause to their health and life as a whole.

II. LITERATURE REVIEW

Sr. No.	Reference Name (Write Paper Title)	Seed Idea/ Work description	Advantages
1	Evaluation of a Sensor System for Detecting Humans Trapped under Rubble.	The paper focuses on the detection of humans trapped in rubble by using IOT device.	Easy to detect victims trapped under rubble via sensors and cameras.
2	Detection and monitoring of victims trapped under collapsed buildings using wireless.	It is a new sensitive life detection system using piezoelectric plate for locating human beings under collapsed buildings.	It detects the victims trapped under collapse building by using wireless signal conditioning unit.

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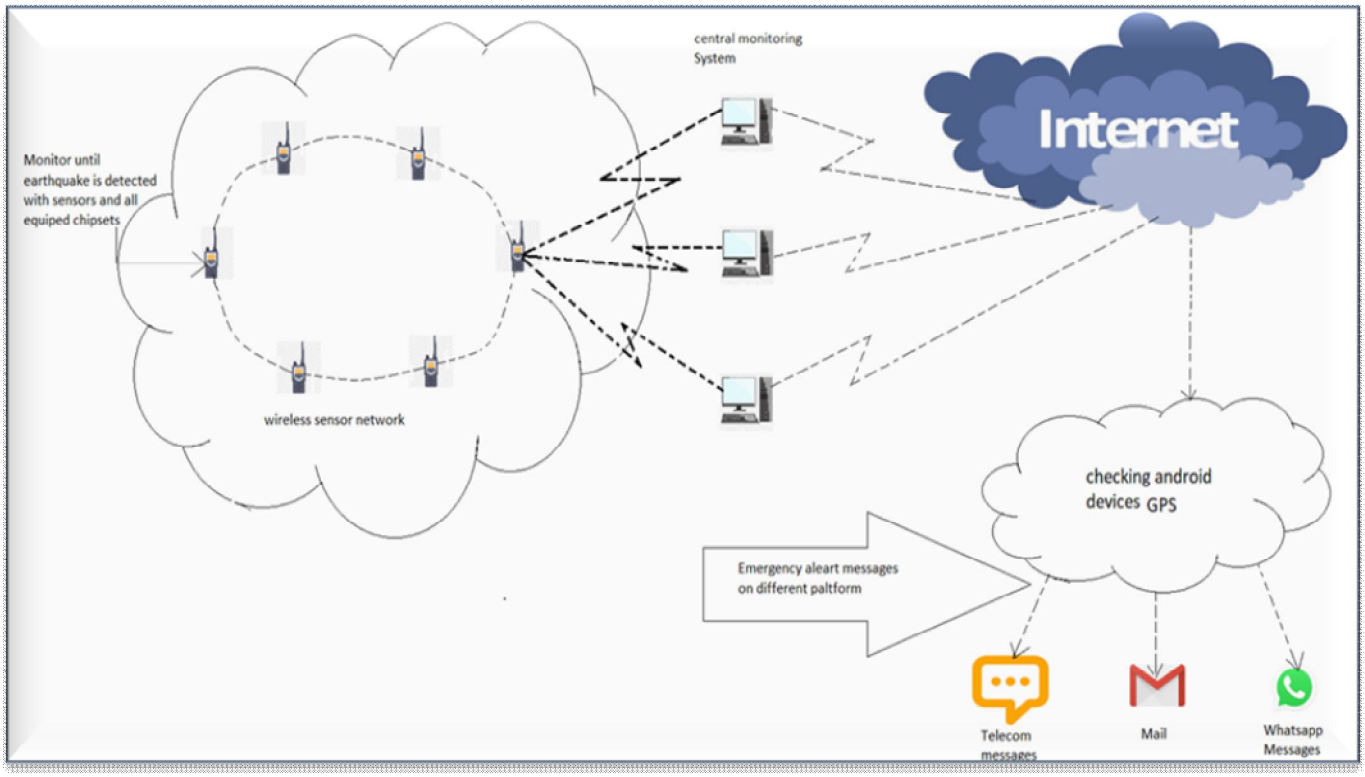
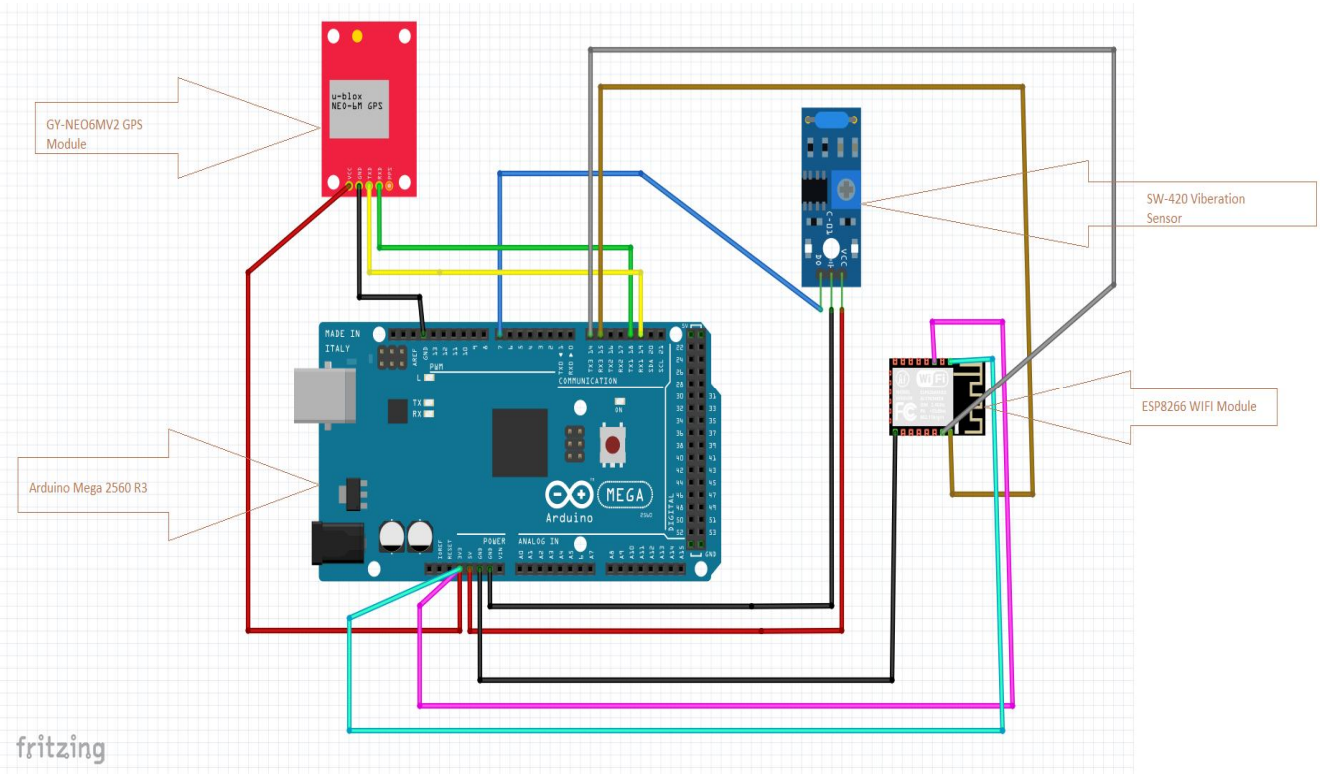
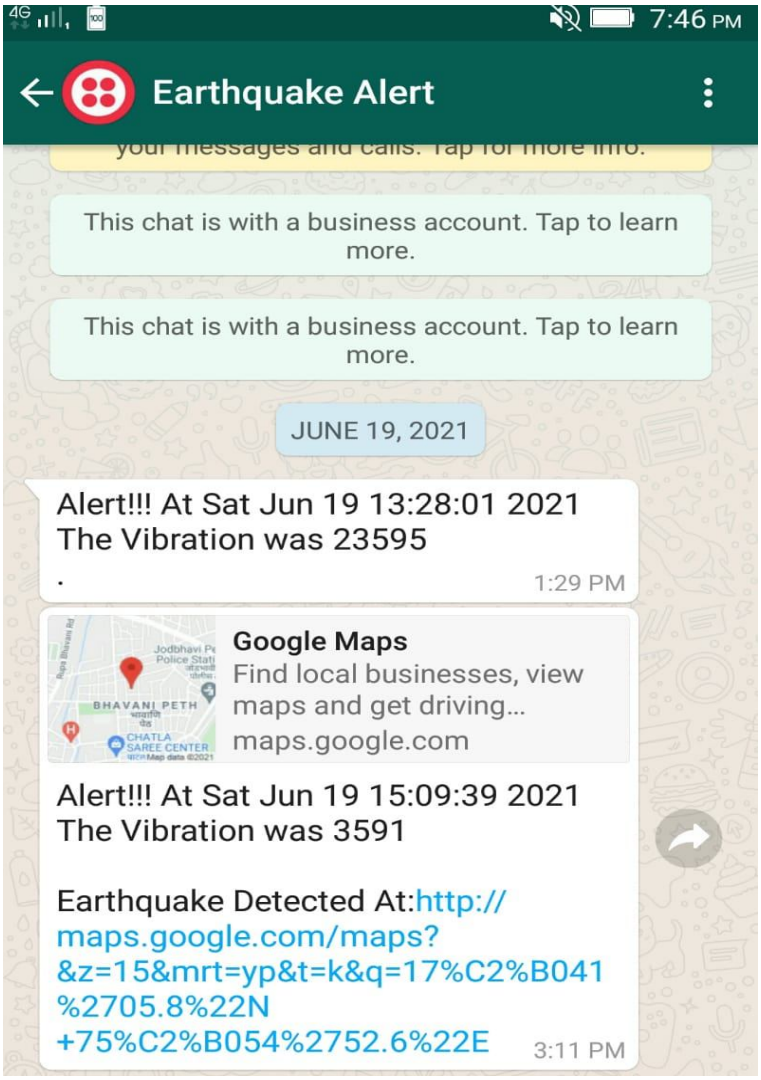
III. PROPOSED SYSTEM



IV. IMPLEMENTATION



V. RESULT



VI. CONCLUSION

The early earthquake warning system will alert the people well before the earthquake arrives and will thereby help the people to prepare themselves and the people around them. The early warning message will not only help in saving the livelihood of the people but also help in saving the nation's wealth. Also, the people will be saved from any minor or major injuries. Hence, the system will help in reducing the damage caused both physically and economically.

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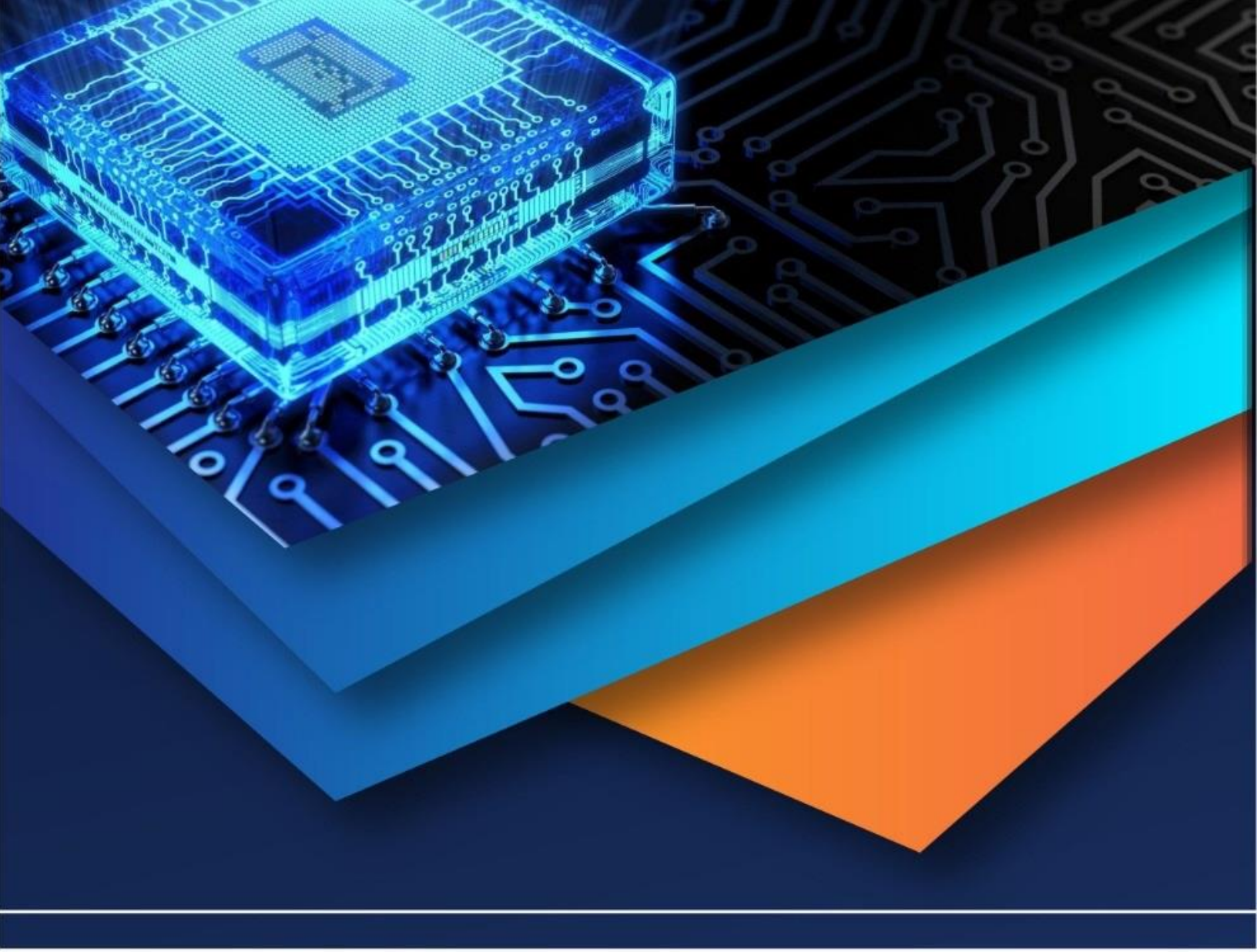

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