ABSTRACT

VIBRATION DETECTION INSTRUMENT USING IoT

This project is based on Vibration Detection using the Internet of Things. Vibration monitoring is the measurement of passing movements in a structure. This project involves developing of an SMS alert when unusual vibrations are detected. It includes a lab-based experiment of detecting vibrations when different magnitude of the force is applied. This force causes the change in values of the sensor from its initial values.

Values of acceleration can be seen on webpage and analysis can be done when required. Considering the maximum magnitude at which destruction is high, the alert signal would be generated. This alert would be sent to different mobile phones using GSM Technology. With the help of this, we can be aware of the vibrations. Properly done, vibration monitoring can be extremely helpful in preventing damage to structures understanding the nature of damage and ascertaining its cause.

Currently we are using Arduino microcontroller, accelerometer sensor and GSM Module as our main components. The code of the Arduino Uno microcontroller is written in C++.

Submitted by

Vaibhav Gupta
Intern – DRDO
SRM IST
8449411118