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# IoT based Weather, Soil, Earthquake, Air pollution Monitoring System

Publisher: IEEE

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### Abstract



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#### Abstract:

This article provides IoT information on a great option for tracking local temperature variables and enabling the information accessible from any part of the planet. The ... [View more](#)

#### Metadata

#### Abstract:

This article provides IoT information on a great option for tracking local temperature variables and enabling the information accessible from any part of the planet. The dynamic changes in the weather are to blame for the severe flooding. Using the NODEMCU ESP8266, it accomplishes the creation of a flood observing arrangement for loading and recovering data from the arrangement. Ultrasonic sensors and LEDs are used to warn the authorities to the presence of heavy water. A crucial component of plant life, soil moisture will directly impact crop growth and output. A key component of the vegetation that directly affects the development and production of the harvest is soil moisture. It uses a microcontroller and sensor to carry out the advancement of soil dampness checking. The initial tremor of a large earthquake is picked up by an earthquake warning system employing a sensor. Because there are more businesses and vehicles on the road today, the air quality is poor, which has an impact on people. The importance of using IOT to evaluate the value of the air and the amount of pollutants in the environment cannot be overstated because the field has experienced a major development. It creates a system that uses the MQ135 sensor, which will be visible on the Cayenne platform, to measure the amount of harmful airborne pollutants such methane, alcohol, benzene, and CO<sub>2</sub>. Data is automatically stored in private channels by thing talk. The data obtained from the embedded scheme could be reachable over an internet from wherever in the sphere.



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## Contents

### I. Introduction

The weather system was a technological advancement that uses multiple sensors to collect data.

The NODEMCU ESP8266, the device's brain, communicates with temperature & humidity sensors, barometric pressure sensors (BMP181), & rain sensors (FC38) for monitoring the various climate components, like temperature, rain, and humidity separately [1]–[5].

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