

# Estimating Road condition using GPS, Accelerometer and Gyroscope data

## IoT Architecture

## Application Layer

The data received from gateway would be processed and analyzed here. Using these sensor values, a map of the condition of the road is generated.

## Network Layer

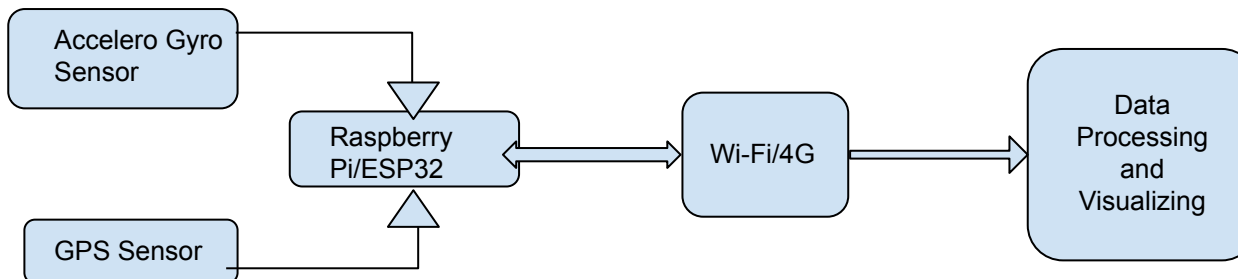
Using Wi-Fi/4G to receive the photos from Raspberry Pi to edge gateway. Gateway sends this received data to the cloud using MQTT/HTTPS.

## Perception Layer:

Raspberry Pi/ESP32, GPS, Proximity and Gyroscope Sensor.  
Raspberry Pi/ESP32 is equipped with GPS, Accelerometer and Gyroscope Sensor that captures the data and then transmits it to the gateway for further processing.



## Block Diagram:



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