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(57) Abstract :  
 ABSTRACT IoT enabled road surface monitoring system The present disclosure introduces an IoT enabled road surface monitoring system 100, an innovative device in the field of road infrastructure management. It comprises of camera 102, ultrasonic sensor 104, GPS module 106, microcontroller 108, cloud module 110, user interface device 112, mobile application 114 and communication module 116. The ultrasonic sensor 104 measures pothole dimensions, and a microcontroller 108 processes the data, triggering immediate alerts for severe cases. A cloud module 110 centralizes data processing, offering real-time monitoring and analysis. User interfaces 112, including laptops and smartphones, connect to the cloud, providing 24/7 online access to road conditions. The mobile application 114 enables on-the-go monitoring and modification of data classifications. The GPS module 106 ensures accurate location data, contributing to efficient road maintenance. Reference Figure 1

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