ABSTRACT

IOT-BASED ROAD QUALITY DETECTION SYSTEM

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The road is a transportation infrastructure that is used by the community for various purposes. Road irregularities such as bumpy roads, cracked roads, potholes can have an impact on driving and even accidents. The importance of maintaining the safety and comfort of road users by paying attention to road conditions, including the flatness of the road surface. This research creates a road quality detection system. This system will detect vehicle vibrations when passing through the road. Making a road quality detection system will use NodeMCU, Neo-6m GPS sensor, MPU6050 Sensor, and SD Card Module. This research method uses Prototyping development. Tool testing is done using the prototype method. After implementing the prototyping stage and testing, the data stored on the sd card module will be uploaded manually into the database. The data is then displayed on a website in the form of a digital map. The digital map will display road damage points indicated by color.

Keywords: Road, Road Unevenness, Road Quality, MPU6050 Sensor, GPS Sensor.

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