# Pothole Detection System

**Mr. S. R. Kokane[1], Hrithik Sharma[2], Mitali Raghwani[3], Shreyash Khambalkar[4]**

Guide, Department of Electronics and Telecommunication[1]

Students, Department of Electronics and Telecommunication[2,3,4]

All India Shri Shivaji Memorial Society Institute of Information Technology, Pune, India

**Abstract:** *Potholes are known from long ago and their solutions are also found from different angles. While doing the literature survey there were many researchers and solutions which can be applied with help of different hardware systems. Detection of potholes is not the one thing which can be used to avoid them. Displaying potholes is also important which can make drivers aware of them. System consists of a GPS module which will be collecting coordinates and an ultrasonic sensor will sense the distance which will be then taken to find the average distance from the road after every few cycles. Getting these two data which will be coordinated and filtered out according to the limit suggested by the investigators of the UK which is more than 40mm will be sent to the Cloud and can further be displayed on an android App with the help of google maps. This system will not only help to detect potholes but also by locating them they can be avoided as well as soon repaired for the future scope.*

**Keywords:** GPS: Global Positioning System, UK: United Kingdom, App: Application, Cloud: Cloud storage is a cloud computing model that stores data on the Internet through a cloud computing provider who manages and operates data storage as a service

## REFERENCES

[1]. Z. HOU, K. C. P. WANG, AND W. GONG, "EXPERIMENTATION OF 3D PAVEMENT IMAGING THROUGH STEREOVISION," IN PROCEEDINGS OF THE

[2]. MDPI and ACS Style

[3]. Sattar, S.; Li, S.; Chapman, M. Road Surface Monitoring Using Smartphone Sensors: A Review. Sensors 2018, 18, 3845. https://doi.org/10.3390/s18113845

[4]. Dhiman, Amita & Klette, Reinhard. (2019). Pothole Detection Using Computer Vision and Learning. IEEE Transactions on Intelligent Transportation Systems. PP. 1-15. 10.1109/TITS.2019.2931297.

[5]. Ryu, Seung-ki & Kim, Taehyeong & Kim, Young-Ro. (2015). Image-Based Pothole Detection System for ITS Service and Road Management System. Mathematical Problems in Engineering. 2015. 1-10. 10.1155/2015/968361.

[6]. UK Department for Transport. (2012). Prevention and a Better Cure: Potholes Review.

[7]. Song H, Baek K, Byun Y. Pothole detection using machine learning. Adv Sci Technol. 2018;150:151-155.

[8]. Ryu, S. K., Kim, T., & Kim, Y. R. (2015). Image-based pothole detection system for ITS service and road management system. Mathematical Problems in Engineering, 2015.