## Abstract

Recently, a significant amount of research attention has been given to monitoring the road surface anomalies such as potholes and speed bumps. In this paper, speed bump detection method based on a fuzzy inference system (FIS) is proposed. The fuzzy inference system detects and recognizes the speed bumps from the variance of the vertical acceleration and the speed of the vehicle. The proposed method utilizes the embedded sensor (accelerometer) in the Smartphone. The proposed method is tested and evaluated under different speed levels. The results show that the proposed method is promising for bumps detection.



## Keywords

Fuzzy Inference System; Road Monitoring; Smartphone; Vertical Acceleration;