

Abstract

Road as one transport infrastructure has become the lifeblood of the society which has an important role in the development of state and nation. Indonesia today has around 3.800 kilometers of damaged roads, or about 10 percent of the total length of national roads. One obstacle that causes the slow progress of road repairment is the measurement of the pothole area. In this process, calculation of area in each pothole is done. Measurement process nowadays is manually done by using a conventional tool (such as roll meter) with the help of human entirely. This final project is trying to develop the system for detecting and measuring pothole area, by implementing the threshold-base marking and GLCM method in asphalt surface video.

Based on Christian Koch and Loannis Brilakis, threshold-based method is able to do the segmentation and marking the possibility of pothole in asphalt surface video frame. Based on Mark Nixon and Aguado Alberto, gray level co-occurrence matrix has a good performance to extracting the texture in order to distinguish the texture of pothole and normal surface. Combination of both methods could be an alternative for measurement of pothole area in the process of road repairment in Indonesia.

Keywords: pothole, detection, measurement, threshold, GLCM.