ABSTRACT

The need for a system for monitoring is very important. As with parking locations, which requires a system that is useful for monitoring the availability of parking slots, especially for four-wheeled vehicles. This research uses background subtraction method and desktop-based morphology method. It is expected that in a parking lot, the number of filled parking slots and the number of parking slots that are empty can be calculated. The system is made using the background subtraction method and also the morphological method to detect parking slots. The use of the background subtraction method shows that this method can function in detecting moving car objects in the simulation video. To reduce the existing shadow noise, the author uses the erosion morphology method so that the results of the background subtraction process where there is still a lot of shadow noise can be reduced by erosion morphology techniques. From the results of the tests that have been carried out, the results show that the tests that have been carried out using the method of background subtraction and erosion morphology show that the results of the method used can detect and calculate the state of the simulated parking slot. All simulation scenarios starting from one filled slot, two slots, up to three slots that have been tested get the expected results.

Keywords: Parking, background subtraction, morphology