

## ***ABSTRACT***

*Drivers who do not know the available parking spaces make drivers need more time to look for them. Often in multi-storey parking lots, parking attendants cannot always monitor with certainty the conditions of parking availability directly so that potential parking users do not know the position of available parking spaces. In addition, many parking lots use automatic door lintels, but there is no parking space information viewer yet.*

*In this final project, an information system for parking space availability is designed using image processing. This input system is in the form of an image taken from a web camera installed to monitor parking spaces. The image is processed to produce data, then the data is reprocessed using the MATLAB platform so that it becomes an information system that can be accessed by visitors. The method used is morphological image processing.*

*Based on the results of testing and analysis of images in the parking space availability information system using image processing, the percentage of truth detection 100% is obtained when the light intensity is 3 lux, 15 lux, 30 lux, 60 lux, 120 lux, and 250 lux, the average duration the processing time is 1.59 seconds. an accuracy percentage of 100% is obtained for testing of all filled parking spaces ranging from one vehicle filled to eight vehicles filled, an accuracy percentage of 100% is obtained for testing every 9 different vehicle colors.*

*keyword: parking space, image processing, morphological*