

## ***ABSTRACT***

*Game rides are a place of recreation and entertainment place of the community that is often visited. Game rides have appeal because many types of games that adrenaline-tested. This adrenaline-tasted game has height terms and condition to enter it. To determine the visitors who can enter the game requires a fast gauge that does not require a long time in the selection of height.*

*To resolve that problem, then it is made a application to measure the height with image processing and use camera to capture an object image. The process of image processing doing by using Android Studio software that integrated with OpenCV library. After get the result of height measurement, it will be displayed on smartphone screen and LCD. To displayed the result of height measurement to the LCD needed Bluetooth connection that connected on microcontroller. Then with this system the visitors can know their height from smartphone screen.*

*From the results of testing that has been done shows that the accuracy of the system in measuring height gets an accuracy percentage of 99.3% using parameters of distance of 4 meters and light 1596 lux. In addition, the average time needed to send the measurement results from the android application to the LCD is 1,189 seconds.*

***Keywords: Body Height, image processing, smartphone.***