

## ABSTRACT

*Ground Penetrating Radar (GPR)* is a radar that used to detect buried objects. GPR has many advantages such as easy to use, non destructive so appropriate for the environment and also cheaper than other method. GPR consist of transmitter part which connect transmitter antenna to pulse generator, and receiver part which connect receiver antenna to image processing. GPR transmits electromagnetic wave into the ground. If the electromagnetic wave reach the buried object, it will be transmitted and reflected back to the receiver antenna and the reflected impulses will be proceed in image processing.

In this paper, the image processing is to verify the depth surface of buried object by analysis the difference of color intensity of standing wave by B-Scan processing. The maximum intensity presented by white image while the minimum one by black image.

The color difference is indicated the reflected signal from the buried object. Object position depth is in the first maximum intensity of the parabola shape. By B-San processing we can reach 85.335 % of accuracy in determine the depth using mask 7x7, eye(5), first labeling threshold = 0.61 and second labeling threshold = 0.65. And also 84.75 % of accuracy while using mask 5x5, eye(3), first labeling threshold = 0.647 and second labeling threshold = 0.686

Key Words : GPR, *standing wave*, *B-Scan processing*