ABSTRACT

Ground Penetrating Radar (GPR) is a transmitter of electromagnetic signals emitted from an object and then reflected into electromagnetic waves. The radar system consists of a transmitter, reciver. GPR is usually used in a variety of media, including rock, soil, clean water, sidewalks, and other hard structures. GPR is also used to determine the characteristic of an object and GPR can visualize an image of object that has been implemented.

In this study, Identification will be canted out ontrunk in woods from that has two types which are the hollow woods and the not holloe ones. This research is conducted because of the large number of trees that fell due to porosity on the trunks that is hard to see in plain view. There fore the identification on the logs appliying GPR to simplity the checking on the logs state.

The results of this experimental test on the GPR model were made to show that the GPR system can detect loss on a log that works at a frequency of 1-8 GHz. The results of measuring a log at one point can be distinguished the results of the signal are only relatively small. Other results obtained in circular scanning we can identify intact wood and hollow wood.

***Keyword** : Ground Penetrating Radar, Vector Network Analyzer, Wood.*