## **ABSTRACT**

Each electronic device needs electronic components. The electronic components were made from the electronic material. Every electronic material has it own constant such as  $\sigma$ ,  $\mu$ ,  $\epsilon$  (conductivity, permeability, permittivity). At this final project those constant is going to be measured. The measurement process is done by measuring the value of R, L, and C which later substitute at this following.

By picking up the length dimension, diameter, and the width of the materials, so the value of R, L, C could be measured by using the Network Analyzer. Then those three values of the constant could be known from the value of R, L and C as suit with the formula abovementioned.

In this final project the constant  $\sigma$ ,  $\mu$ ,  $\epsilon$  from the garbage material in our surrounding is proposed to be an electronic component

For this research several garbage materials sample will be used, and latter expected to be used as a material in making the electronic components.