

## ***Abstrac***

Nowadays, android smartphone has become today's common choice. Some many activities have been done by using android smartphone. Thus, any information which are related to users activities can be stored in that smartphone. One of them is information gathered from digital communication activities which are done by users. One instance of digital communication is wireless communication which consists of wifi and bluetooth. In order to gather those information, it is necessary to implement digital forensic. In regard of criminal investigation, those information can be used as digital evidence which can assist in solving the case.

In this research, the acquisition process of information from android smartphone will be done in regards of wifi and bluetooth activity's. In order to engage the acquisition process, open source tools will be used to support the entire process. The search of digital evidence will be focused on 2 areas : those are circular buffer to acquire volatile data and physical image from filesystem to acquire non volatile data. Testing will be done on 3 different vendors with 3 android versions : v2.3, v4.0, v4.1. Furthermore, the testing will include analyzing efficiency from the means of acquisition process, the impact of time to digital evidence and file structure where potential evidence is stored.

***Keywords*** : *digital forensic, digital communication, digital evidence, live analysis, circular buffer, physical image, volatile data & non-volatile data*