

ABSTRACT

Mobile Positioning which is often called location estimation is very useful in various aspects of telecommunications technology. The only way to search for estimated locations in the telecommunication sector is to use GPS or GOOGLE MAP. The location search in previous research using the RTL-SDR resulted in the location of the BTS being searched and there was no description of the location of the device. User search in this study uses the RTL-SDR device with the trilateration method as a comparison of the coordinates of the actual location. This study improves previous studies, because in this study it did not show the location of the device. While searching for locations using the RTL-SDR with the trilateration method shows the location of the device with evidence of a difference between the cellphone GPS and satellite GPS with the location of this study. Where the location search using the RTL-SDR device has a difference of 13.32 meters on the latitude axis, 44.4 meters on the longitude axis if using a cell phone GPS. While the difference in finding the location using the RTL-SDR device with the trilateration method using GPS satellites, the difference reaches 6.66 meters on the latitude axis and 15.6 meters on the longitude axis.

KEY WORDS : *SDR, Mobile Positioning, trilateration*