

ABSTRACT

In planning cell, usually cellular and engineering students using a PC-based software. The software still can not yet be said to be portable and mobile use. While the growing android known in the manufacture of portable and mobile applications that can be easily used. Students and students who learn about mobile plans can directly apply on their smartphones.

Therefore, we need a android app on the smartphone as a 3G cellular network planning simulation-WCDMA is easy to understand. It must also be familiar in this day and age because of the growing Android smartphone users. So know when planning a cellular engineering to simulate the mobile application.

The final study design an android-based application in the planning of 3G-WCDMA cellular networks. Functionality that have been tested all functions within the application runs well on smartphones with Android operating system version 4.2.2 (Jelly Bean). In calculating the average percentage error of 0.06493% for Medan Labuhan area, 0.31038% for Medan Perjuangan area and 0.05154% for Petisah Medan area. The level of deviation (deviation) using the chi-square obtained by 0.00285 to Medan Labuan area, 0.05804 to Medan Perjuangan area and 0.00123 for Medan Petisah area. Of the total of tests performed, the application has been made feasible for use in the calculation of the 3G-WCDMA cell planning based on ITU-R M.2023 reference to area-3 region.

Keywords: *3G-WCDMA, android and mobile planning*