ABSTRACT

Android operating system that is open source give simplicity for application developers to make an application accordance with the requirements. Link budget calculations on the study of satellite communication systems for students and lecturers will be solved by using a calculator. The completion on the study of satellite communication systems requires precision and accuracy because the calculation formula is quite complex, than that the tools used by students or lecturers is calculator out which must include the numbers and mathematical operations so it requiring quite a long time. To overcome this, then the authors design the applications link budget calculations of satellite communication systems based on Android mobile. The application can display graphics between the parameter values ofEb / No and diameter of antenna. How to make the application link budget of Satellite Communication Systems using a mobile phone with Android operating system. The method used to make this application is waterfall method comprising the steps of requirement analysis, system design, writing the program code and examination. from manufacture the application link budget of Satellite Communication Systems on the creation of graphs contained supporting applications which must be copied on library libs directory, supporting applications tailored with graph model that will be used by application developers. The average time needed to complete the Link budget calculations of satellite communication systems use the Android-based applications is 96.68 second and using a scientific calculator The average time needed to complete the calculation is 224 second. from graphs in this application can be known influence the value of Eb / No with a diameter of antenna is directly proportional.

Key Words : Satellite Communication Systems, Link Budget, Android, Handphone