

## **ABSTRACT**

*The development of Android-based smartphone application today is quite rapid, even Android-based applications are now widely available, but Android-based applications used in the world of telecommunications technology are still very rare. Especially applications that can be used for optical network design. Usually, to do design, technicians still do calculations on paper to find out whether the design of the network that has been designed can be implemented or not. This, of course, makes the calculation time a little longer and prone to error when doing the calculation.*

*In conducting the design of optical network there are several parameters that must be considered, one of them is the calculation of power link budget. The value which is generated from the power link budget calculation must meet the feasibility of the optical network design. After that, it will be analyzed whether the network that has been made can be implemented and have a good performance. Therefore, to help simplify the calculations performed manually on paper, then the software power link budget integrated smartphone based on Android is made. It's expected that by the addition of calculation power link budget based on Android, the design of optical networks can be done easier.*

*This android application that has been created can help for learning optical network design easily with the optical drafter method. Beside that, this application makes it easy to calculate the power link budget because the calculation is immediately obtained automatically from the drafter results. The accuracy level of Drafter & Calculation application is 100% by comparing the calculation based on application and manually calculation. The BOQ menu of this application can display the price catalog of the usual FTTH network devices that's usually used.*

**Keywords : Application, Android, Power Link Budget, Optical Network**