ABSTRACT

Telecommunication sector has developed rapidly by introducing many kind of new services, such as voice, data and video. These services are expected could be delivered to user over one platform of infrastructure, called Fiber To The Home (FTTH). FTTH is a target platform of multimedia services.

This Final Assignment study FTTH implementation using PON (Passive optical Network) technology.as a pre-study network planning to increase multimedia services including network planning, power link budget also services mechanism of FTTH systems.

This research results a planning network using PON technology in DivRisTI and Divlat area, consists of 26 user terminals. Power link budget analysis results the attenuation links are various, the small value is 10,6544 dB in FDF Lab. Akses link, received power -0,6544 dBm and the great value is 16,8488 dB in FDF lab Akses-Lab Service/Broadband link, received power -6,8488 dBm. This results shows that attenuation values for all links are lower than PT.Telkom standard (30 dB) and also the level received power are higher than the sensitivity of receiver (-14 dBm). From the signal received, the links are adequated.