ABSTRACT

The development and application of telecommunications technology is developing very fast, optical fiber technology (fiber optic) is one of the transmission media that can channel information with a large capacity with a high level of performance (performance). Composite of fiber optic cable consists of several parts, namely Core in the middle which has a function to determine the direction of propagation of light on fiber optic cables and cladding on the outside which serves to protect cores that are easily broken and broken, refractive index of core material must be greater than the refractive index of the cladding material. The problem that often occurs in optical fibers is the loss of light energy in optical fibers. Basically the loss of light energy is caused by several factors, namely the core material of optical fiber (core) is dirty, the light turns towards the wrong, bending cable due to broken joints, patch cord bend, causing bending. The solution to the maintenance problem is fiber optic connection with fusion splicing technique. The results of the maintenance process will be tested with a tool called OPM (Optical Power Meter) by plugging the end of the cord cord into the OPM and the other end into a fiber optic fault. From the results of test and maintenance analysis, a better service improvement is carried out with attenuation values of around -17 dBm to -25 dBm compared to damping values before maintenance with values around -28 dBm to -35 dB. With this maintenance process decreases the damping value. In this Practice Work the writer learns about the technique of fiber optic cable connection which produces small losses and makes the transimt value normal. Fusion of fiber optic cable connection (Fusion Splicing) that requires a Fusion Splicer tool.

Keywords: Fiber Optic, Optical Power Meter, Fusion Splicer, Core, Maintenance