

## ABSTRACT

*Accessing network services for an area requires greater bandwidth at high speed. Based on the consideration of the geographical conditions of the area where the data network will be built, the Fiber to The Home (FTTH) network is suitable for solutions for areas with densely populated conditions. This condition makes it possible to change the structure of the copper network into an optical network up to the customer's house. Dawuhan Village is a village that has these qualifications. The author designs a Fiber to The Home network that can be implemented at that location. The design of the FTTH (Fiber To The Home) network construction in the working area of PT. Telkom Indonesia, Datel Banjarnegara, Dawuhan village were carried out using Google Earth and AutoCAD software. For the data obtained in the form of FTTH network design design on Google Earth software as a reference for network development and labeling the specific location of the FTTH network builder components in AutoCAD software such as the location of ODC coordinates, distance between poles, number of cores, ODP location, amount of slack given at the time of installation. construction and the type of splitter used. As an illustration, implementation in the field is somewhat easier and on target.*

***Keywords: FTTH Network (Fiber To The Home), Network Design, Google Earth software, and AutoCAD***