

## ABSTRACT

*Wireless LAN is a wireless local area network where the transmission medium using radio frequency (RF) and infrared (IR), to give a network connection to the entire surrounding area pengguna dalam emitted by a device known as the Access Point. Telkom Institute of Technology (ITT) itself, the existence of Wireless LAN is very beneficial for the entire academic community, namely the provision of wireless internet service. However, the spread of wireless signals in the ITT has not been spread evenly. Many places that generally have the students often go through a Wi-Fi signals are low and sometimes there are no signals at all.*

*In this final project discusses the mapping of the access point contained in the ITT. Software used is Geographic Information System (GIS) software that is designed for mapping, management and modeling of an area that begun to solve a problem and planning work in the region based on data already obtained. Other software used is useful for wardriving Netstumbler (for Wi-fi action by someone in a moving vehicle, using portable computers or PDAs), network configuration Checking, Find locations with poor coverage in a WLAN, Detecting causes of wireless interference. In this final project, carried out regional mapping Telkom Institute of Technology using GIS software. Then do the tracking signal in every corner of the institutions using Netstumbler software that then the results incorporated into the GIS software which can then be dilihat result if the current spread of the signal that there has been uneven, or vice versa.*

*The final project is expected to note any areas that can or can not access the WLAN, improve the quality of the spread of Wi-Fi signal in order to avoid congestion ITT signal or a blank spot that should not be done until the network optimization.*

*Key word : Wireless LAN, Netstumbler, GIS, access point*