

## **ABSTRACT**

PT. Telkom is a telecommunication service provider of a fixed phone which uses a copper cable as a transmission media. As the only one provider in that field make the copper cable as a precious asset for PT. Telkom. An aerial cable robbery caused PT. Telkom loses its asset, besides that it can lose revenue from the customers who are using that transmission media.

The design of this final project is using one of PT. Telkom's pair copper cables as an input for microcontroller. By using the I/O and scanning input processing in microcontroller can be designed a system that can receive an input from the telephone line. So that, if there is a cable breaking, which will became the input for microcontroller, this system will work. And then to accelerate the process of handling the aerial cable breaking, SMS gateway is used to inform that information to the PT. Telkom's party.

This final project is designing and realizing detector for PT Telkom's aerial cable breaking by using microcontroller AT89S52 and Siemens C45 mobile phone as an interface for SMS gateway application. So that the output from this application can inform the information of the aerial cable breaking and also save the PT Telkom's asset.