## **ABSTRACT**

Peripheral of Remote Terminal (RT) in Fiber Optik network is used to place keeping modules which converting light signal to electrical signal, conversely. At generally, Remote Terminal be attached or placed in outdoor, same as RK (Cable House in Copper Access Network). Modules of Remote Terminal have price sell costly. Existence the factor cause module of Remote Terminal Gristle to theft action. Along the increasing of the theft action, hence need existence of precaution by creating of a security system. Mainstay and economic of this system is very required implementation to peripheral security system.

In this Final Project be designed a security system which can detect existence of theft action or ruining (opening the door forcibly) at Remote Terminal in Fiber Optik network. This Security Sistem use control from microcontroller. With equipped system password give more security to peripheral Remote Terminal. If password which the wrong input hence microcontroller will be activated alarm, switch shoot, and send data to transeiver DTMF utilize to give dial signal for the telephone number. If correctness hence switch shoot will be opened, alarm inactive and microcontroller don't send data to transceiver DTMF.

Pursuant to implemetasi, peripheral equiped by 4 digit system password which can be altered and the mechanic censor capable to detect condition of the door and module at Remote Terimal. This peripheral yield Level Voltage 12,14 Volt with loop resistance 680 ohm at off-hook and 52,06 Volt with loop resistance 0,56 ohm at on-hook so that not bother performance of line phone and the yielded voice quality beside receiver.