# ABSTRACT

The temperature above which occurred in the living standards of telecommunications equipment as well as the transmission room, central and multimedia should be avoided. Because at high temperature all devices work less than the maximum or could damage one of the components/modules that will greatly affect the performance of all parts of each tool, so that it would interfere with telecommunication system and result in losses both material and non-material is very large.

This final project is designed to implement a monitoring system disturbance on the performance of air conditioning in the form of a prototype, with notification of the error indicator on the telecommunication equipment room cooling, titled "**MONITORS THE PERFORMANCE OF AIR CONDITIONING SYSTEMS BASED ON ATMEGA8535 AVR MICROCONTROLLER** " This system uses a sensor and on-off switch that will monitor the condition of room temperature and condenser blower, plus a maintenance scheduling system for freon and filter system in both the evaporator and condenser every 3 months

The system monitors the performance of this air conditioner uses on-off switch as an indicator to review the state of the condenser blower on or off and temperature sensor to review the state of the room of temperature level. Monitoring system is equipped with the RTC that serves as a reminder in the real time to the maintenance of filters at the evaporator and condenser air conditioning in order to clean and conditioning monitoring that systems freon every three months. Output of the indicator on-off switch, temperature sensor and the RTC will be displayed on the LCD. On-off switch, temperature sensor, RTC and other fitting are monitored by ATMega8535 AVR microcontroller. The system is also supported by a set of alarms are directed to the nearest security station as the initial notification has been an interruption in air conditioning and via SMS to notice a disturbance in the air conditioning to the parties concerned.

Keywords: AVR ATMega8535, LM35, On-off switch, RTC, AT Command